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ABSTRACT

A study was conducted of Indiana's Summer Programs for the Education and Development of Youth (SPEDY) to describe the program themselves and to study the programs' effect on participants' short-term career education attitudes, knowledge, and skills. SPEDY is a training for public-sector work program operated each summer for about ten weeks for fourteen- to twenty-one-year old economically disadvantaged youth and funded by the Title III of the Comprehensive Employment and Training Act. In 1978, twenty-five SPEDY programs were operated in Indiana's sixty-eight-county Balance-of-State. Ten of the programs consisted entirely of formal career education training, including explorations of various career areas. The other fifteen consisted of between twelve and fifty-three hours of career education training combined with work experience. Nine possible outcomes were chosen for study, work-related attitudes, locus of control, job-seeking skills, job-specific occupational information, self esteem, career planning, attitudes toward learning, general occupational information, and sex equity. Pre- and post-tests were administered and analyzed separately for each of sixteen programs. For total groups, 144 analyses (nine scales x sixteen programs) resulted in twenty cases of significant improvement and ten cases of significant loss. Significant gains were most common in Sex Equity, Job-Seeking Skills, and Career Planning. Most losses were in Attitudes Toward Learning. Overall, the programs were more beneficial to seventeen-to-twenty-one-year-olds than to fourteen-to-sixteen-year-olds and to young women than to young men. Changes in participants' educational and career plans showed desirable trends. (BM)

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SPEDY and
CAREER EDUCATION
in Indiana's Balance-of-State

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EXECUTIVE SUMMARY

Background

During the summer of 1978, New Educational Directions, Inc., conducted a study of the Summer Programs for the Education and Development of Youth (SPEDY) in Indiana's Balance-of-State. SPEDY is a CETA Title III training and public-sector work program operated each summer for about ten weeks to provide 14 to 21 year-old economically disadvantaged youth the opportunity to earn a summer income while improving their chances for successful careers in the future. In 1978, the Occupational Development Centers serving the 13 multi-county service areas of Indiana's 68-county Balance-of-State operated a total of 25 SPEDY programs, each employing different methods for developing youths' work transition or career education skills. The diversity of these programs reflects IOMD's policy of local determination of programs' emphasis and design.

Study Design

The survey consisted of two major components, one to describe the programs themselves and the other to study the programs' effects on participants' short-term career education attitudes, knowledge, and skills.

The NED staff visited each Occupational Development Center three times and interviewed 105 SPEDY staff members. The result was a description of each program, including information about the staff, the participants, the duration and timing of the program's work experience and career education components, the priority placed on each of nine career education objectives (see below) and the learning techniques employed to achieve them.

Ten of the programs consisted entirely of formal career education training, including explorations of various career areas. The other 15 consisted of between 12 and 53 hours of career education training combined with work experience in public service jobs. In eleven of the work experience programs all participants experienced similar career education activities; in four, most career education activities were individualized.

Nine possible outcomes of SPEDY were chosen for study and customized paper-and-pencil tests were developed to measure them:

- -Work-Related Attitudes--attitudes underlying good work habits, such as punctuality, getting along with co-workers, etc.
- -Sense (Locus) of Control--the belief that the individual has control over his or her own destiny, as opposed to a sense of powerlessness.
- -Job-Seeking Skills--such as how to handle employment interviews, how to locate job openings, etc.
- -Job-Specific Occupational Information--knowledge about the nature and requirements of various career opportunities.
- -Self Esteem--self-confidence, a sense of worth.
- -Career Planning--belief in the value of planning ahead, knowledge of how to make career decisions, involvement in career planning, etc.
- -Attitudes toward Learning--recognition of the relevance of school learning, desire to learn in school, work, and leisure.
- -General Occupational Information--knowledge of facts relevant to all types of careers.
- -Sex Equity--willingness to disregard gender in matters related to career planning, preparation, and employment.

The tests were administered during the first week of SPEDY and again toward the programs' end. Tests' results were analyzed separately for each of 16 programs to determine whether there were reliable improvements or losses in participants' scores on any of the nine test scales. Nine could not be included in final analyses. Four other series of similar analyses were conducted separately for each program's male, female, 14-16 year-old, and 17-21 year-old participants. Final analyses involved 1,800 youth who remained in SPEDY throughout the summer.

Major Findings

1. For total groups (each program's participants of both sexes and all ages combined), 144 analyses (9 scales X 16 programs) resulted in 20 cases of significant improvement and 10 cases of significant loss. Significant gains were most common on Sex Equity, Job-Seeking Skills, and Career Planning. Most losses were in Attitudes toward Learning.

2. The programs had notably different effects on young women and young men and on younger and older participants. Where a program was effective in achieving a particular objective for youth of one sex or age group, it was ineffective for the other. There was only one exception to this; one program had success in teaching job-seeking skills to both males and females.

3. Overall, SPEDY was more beneficial to 17-21 year-old youth than to 14-16 year-olds in terms of the nine outcomes considered in this study. Of the 78 statistical tests for older youth, nine showed positive results and none showed negative results. Ten of the 122 analyses of 14-16 year-olds' results were positive and 14 were negative. For 17-21 year-olds, success was demonstrated most often on the Career Planning scale. The younger group's job-seeking skills improved most often; their attitudes toward learning declined most often, with the latter outcome accounting for half of their significant losses.

4. Overall, SPEDY was considerably more beneficial to young women than to young men. Females entered the programs with more positive attitudes, greater knowledge, and better-developed skills and also grew more during the summer than did males. Of the 122 analyses for males, 10 were positive and 13 were negative. Of the 133 for females, 28 were positive and 3 were negative. For males, significant improvements were most frequent on the Sex Equity scale and losses most common on Attitudes toward Learning. Females learned the most in the areas of job-seeking skills, sex equity, and career planning.

5. Seven of the ten "100% career education" programs could not be included in outcome analyses, but the results of the three that were included in this phase of the study do not provide a strong case for eliminating the SPEDY work experience component in favor of a full summer of formal career education instruction. Only one of these programs demonstrated above-average results and its effectiveness was rivaled by some less expensive program. It seems that a combination of work and training is preferable, whether training is individualized or standardized makes no notable difference.

6. Since the nine outcomes chosen for study did not represent high-priority objectives of all of the programs, each program's staff were asked to rate the emphasis their programs placed on each outcome. There was no relationship between these priority ratings and programs' effects on their participants.

7. The test included two questions about the youth's educational and career plans. Of the 117 individuals who in June had already dropped out of high school or who expected to do so, 30 percent changed their minds by August and had decided to finish school. Only 2.5 percent of the 1,285 youth who entered SPEDY planning to finish high school changed their minds in the other direction. Changes in the saliency of career plans also showed desirable trends; 28 percent of youth who entered the program with solid career plans reassessed their earlier decisions and 41 percent who began with no idea of what they wanted to do left the program with alternatives in mind.

Guide to the Complete Report

The complete report is rather bulky, but is organized so that it need not be read cover-to-cover.

Part I provides an overview of SPEDY in Indiana's Balance-of-State--including its history and organizational structure--and a discussion of the study's design, procedures, and measures.

Part II presents the study's findings. Several key characteristics of each of the 25 programs are shown in Table I. Tables and discussions of the test results are supported with lay explanations of the statistical procedures used in analyzing them. Some of NED's informal observations of SPEDY staffs' beliefs about the program's philosophy and of the management problems faced by SPEDY program operators are included, as are NED's conclusions regarding the feasibility of applying educational program evaluation models to SPEDY.

By far the longest section is Part III, where each of the 25 programs and its test results are described in some detail. Table I (in Part II) may be used to identify programs of special interest to the reader such as those using a particular instructional technique.

The appendices, consisting of the test instruments and data concerning them, elaborate upon Part I's discussion of the survey methodology. Appendix C provides a profile of the youth involved in pre-testing which may be of use in assessing the needs of SPEDY participants.

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OVERVIEW OF SPEDY IN INDIANA'S BALANCE-OF-STATE

National Program

SPEDY is a national program authorized by Title III of the *Comprehensive Employment and Training Act (CETA)* passed in December, 1973. It first became operational in the summer of 1974, making 1978 its fifth year.

Nationally, SPEDY stands for Summer Program for Economically Disadvantaged Youth, but Indiana's Balance-of-State changed the name to Summer Program for the Education and Development of Youth to alleviate the stigma attached to the national name and to reflect the program's purpose.

SPEDY's heritage dates back to the Neighborhood Youth Corps (NYC) summer programs begun during the Johnson Administration under the Economic Opportunity Act. The NYC programs placed economically disadvantaged youth on public sector work sites and provided them a summer income; education and training were not major focuses.

The following excerpt from the U.S. Department of Labor's (DOL's) SPEDY regulations conveys the intent for SPEDY to place greater emphasis on youth's career development while preserving NYC's purposes of providing needy youth with income and communities with the personpower for local service and improvement projects. SPEDY programs are to provide eligible low-income youth between the ages of 14 and 21 with:

- structured well-supervised work to improve work habits
- opportunities for vocational exploration
- job rotation to provide youth with exposure to different work settings which can assist them in making career decisions
- vocational counseling and occupational information
- summer income to participants who without assistance would be unable to return to school
- assistance for youth with special employability needs
- services which will induce and aid dropouts to return to school
- avenues for securing part-time in-school employment as well as full-time unsubsidized employment when return to school is not expected.

SPEDY programs last about ten weeks each summer. They usually include both education and work components and youth are paid minimum wage or slightly more for their participation in both components. SPEDY jobs are with government or non-profit agencies (excluding political and religious organizations) and are subject to child labor restrictions. Most jobs are in maintenance or unskilled construction--such as developing parks, painting schools, and cleaning public health facilities--but a few involve contact with the public or technical skills--such as testing milk, guiding museum tours, and typing.

Organizational Structure

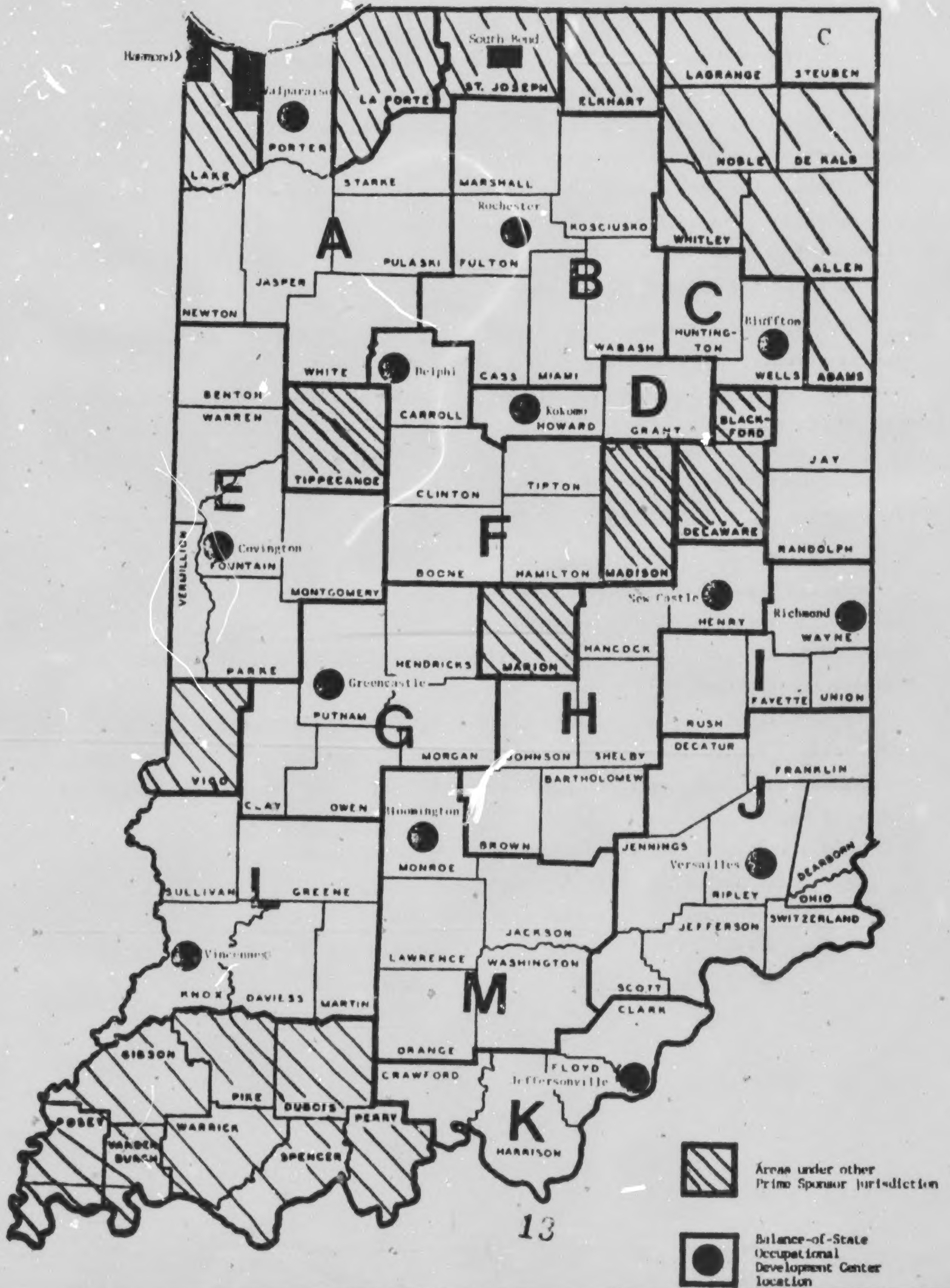
Like other programs of the Economic Opportunity Act, NYC was administered directly from the U.S. Department of Labor through contracts with various agencies. CETA brought a new administrative structure designed to transfer greater responsibility and control to the local level. The *prime sponsor* became the key link in the administrative chain. A prime sponsor is the chief elected official of a governmental unit with 100,000 or more people, typically a large city's mayor or a high-population county's president of the board of commissioners. A smaller unit of government may join an independently-eligible unit to form a prime sponsor consortium. What remains after we take out all of a state's local prime sponsor and consorting counties is called the *balance-of-state*, which is under the governor's prime sponsorship. Twenty-four of Indiana's 92 counties are under 14 local prime sponsors; the other 68 counties form the balance-of-state.

Two types of CETA administrative functions take place at the state level--those pertaining to all of a state's prime sponsors and those associated solely with the balance-of-state. The *Indiana Office of Manpower Development (IOMD)* was created to serve both purposes; the State-Wide Services Division serves the first and the Balance-of-State Operations Division the second. The balance-of-state's Prime Sponsor Advisory Council and its subcommittee, the Youth Council, aids IOMD in setting policies for SPEDY, and other CETA-funded youth programs.

The balance-of-state was divided into 13 multi-county service *areas* for implementing programs funded under Title I of the 1974 CETA legislation. Each area consists of two to nine counties which are more-or-less contiguous and homogeneous. They are named A through M, as seen in Figure 1. IOMD contracts with a *sponsoring agency* in each area to establish and administer an *Occupational Development Center (ODC)*.

FIGURE 1

INDIANA MANPOWER SERVICE SYSTEM


Hammond
Valparaiso
South Bend
LAKE
PORTER
LA PORTE
ST. JOSEPH
ELKHART
LAGRANGE
STEUBEN
C
NOBLE
DE KALB
STARKE
MARSHALL
Rochester
KOSCIUSKO
WHITLEY
ALLEN
A
PULASKI
FULTON
JASPER
NEWTON
B
C
HUNTINGTON
Bluffton
WABASH
WELLS
ADAMS
WHITE
Delphi
CASS
MIAMI
BENTON
CARROLL
Kokomo
HOWARD
D
GRANT
BLACKFORD
JAY
WARREN
TIPPECANOE
CLINTON
TIPTON
E
DELAWARE
F
VERMILLION
Covington
FOUNTAIN
BOONE
HAMILTON
MADISON
RANDOLPH
MONTGOMERY
New Castle
HENRY
Richmond
WAYNE
HENDRICKS
MARION
HANCOCK
PARKE
Greencastle
I
PUTNAM
FAYETTE
UNION
G
H
RUSH
VIGO
MORGAN
JOHNSON
SHELBY
DECATUR
FRANKLIN
BARTHOLOMEW
J
CLAY
OWEN
Bloomington
MONROE
BROWN
JENNINGS
Versailles
DEARBORN
SULLIVAN
L
GREENE
RIPLEY
OHIO
JEFFERSON
SWITZERLAND
JACKSON
Vincennes
LAWRENCE
WASHINGTON
KNOX
DAVIESS
MARTIN
SCOTT
M
CLARK
ORANGE
GIBSON
FLOYD
CRAWFORD
Jeffersonville
PIKE
DUBOIS
PERRY
POSEY
WARRICK
K
VANDERBURGH
SPENCER
HARRISON
Areas under other Prime Sponsor jurisdiction
Balance-of-State Occupational Development Center location

The primary mission of ODCs is to carry out the intake, assessment, and referral functions of Title I, a CETA training program for the chronically (as opposed to the cyclically or youthfully) unemployed. This requires a full-time staff of administrators, clerks, outreach workers, and counselors in each area, as well as a small staff for each county in the area. The ODC structure was the natural choice for administering SPEDY in the balance-of-state. Although additional summer staff are needed for SPEDY, the ODCs' year-round facilities and personnel contribute to the continuity and cost-efficiency of the summer program.

With a few exceptions, SPEDY activities such as recruitment, intake, work site placements, and training activities take place at the county level with coordination at the area level. Figure 2 outlines the administrative structure from DOL to the county.

Characteristics of Balance-of-State SPEDY Youth

The balance-of-state includes communities ranging from very rural areas to medium-sized cities; the largest town is Kokomo, with a population of about 50,000. The total population of the 68 counties is slightly over two million, about 41% of Indiana's population. Agriculture and diverse light industries dominate the economy.

To be eligible for SPEDY, a youth must be a local resident between 14 and 21 (inclusive). Family income requirements are quite complex--some forms of income are counted and others are not--but for a family of four, the maximum includable income is $6,770 per year.

IOMD's enrollment data for SPEDY 1978 are as follows:

Total number of participants: 6356

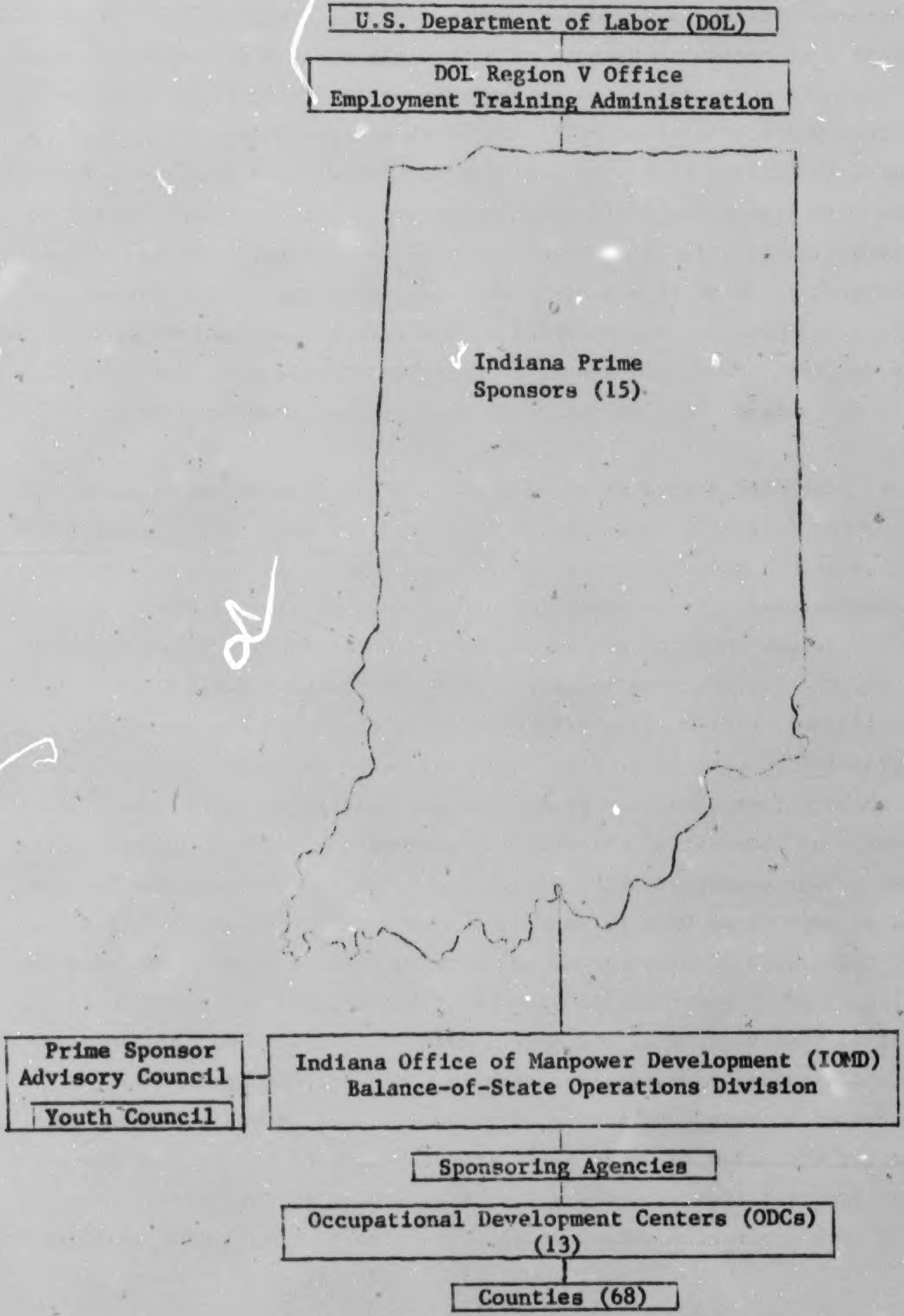
Male: 55%   Female: 45%

14-15: 45%   16-17: 36%   18-19: 14%   20-21: 5%

White: 87%   Black: 12%   Other: 1%

FIGURE 2

Administrative Structure for SPEDY


U.S. Department of Labor (DOL)
DOL Region V Office
Employment Training Administration
Indiana Prime Sponsors (15)
Prime Sponsor Advisory Council
Youth Council
Indiana Office of Manpower Development (IOMD)
Balance-of-State Operations Division
Sponsoring Agencies
Occupational Development Centers (ODCs) (13)
Counties (68)

History of Emphasis on Work Transition Skills

When CETA replaced the Equal Opportunities Act, many of the nation's prime sponsors chose to continue their NYC summer programs through SPEDY, with little or no modification. Indiana's Balance-of-State, however, began in 1975 to develop career exploration/education components of both their Title I and SPEDY programs, with special emphasis on school to work transition skills. In light of evidence that NYC programs had little or no effect on youth's later career success and a body of research indicating that poor work habits, rather than inadequate technical skills, is the main reason for difficulty in holding a job, they have worked to develop job readiness training and career exploration components in both programs. IOMD and ODC operators began to explore career education and to use many of the movement's concepts, methods, and materials. The term "career education" came into common use to describe the ODCs' efforts to help individuals make the transition from school to work, from unemployment to employment, and from subsidized work to permanent jobs.

The career education component of each ODC's SPEDY program was expanded and refined each summer from 1975 to 1977. In late 1977 and early 1978, while SPEDY 1978 was being planned, several events led to even greater attention to career education. The enactment of the Youth Employment Demonstration Projects Act (YEDPA, a 1977 addendum to CETA) and subsequent planning for its implementation brought IOMD and the Indiana Department of Public Instruction (DPI) into a collaborative liaison, particularly with respect to the Youth Employment and Training Program (YETP, part of YEDPA). CETA personnel in the balance-of-state learned more about career education from their association with DPI, and YETP, with its emphasis on "transition services," increased the need for understanding and developing career education techniques. The Balance-of-State Prime Sponsor Advisory Council encouraged ODCs to improve and expand the career education components of their 1978 SPEDY programs and enabled them to do so by raising the maximum portion of SPEDY budgets allocated to administrative and staff costs from twenty percent to thirty percent. In April, 1978, the Indiana Careers Resource Center conducted a career education workshop for IOMD and ODC staffs.

ODCs responded to this opportunity with a variety of innovative plans for delivering career education to SPEDY participants. Some of the approaches were refinements of programs from previous years; others were entirely new. Some eliminated the work experience component altogether so that full time could be devoted to career education training. While negotiating SPEDY 1978 contracts with the ODCs, IOMD staff were struck by the diversity of the career education plans. The potential value of these programs was apparent--the value not only to 1978 SPEDY participants, but also to future SPEDY youth, YETP participants, and Title I clients, since the 1978 summer programs could be replicated and adapted for others in the future. It seemed appropriate to make the career education efforts of SPEDY more fruitful for future planning purposes by evaluating their effects on the 1978 participants. In March IOMD contacted New Educational Directions (NED) to discuss the possibilities of an evaluation.

On April 7, NED, IOMD, and representatives of each ODC and its sponsoring agency met to consider the possibilities further. NED recommended an evaluation design to investigate short-term career education learning with pre- and post-program tests. There seemed to be general agreement that valid evaluation results would be quite useful. There was also much legitimate concern over whether valid evaluation results could be obtained. The lead time was short and the logistics seemed difficult. Was it possible tofind or develop acceptable measures? Could the testing of thousands of youth be scheduled? Would being confronted with a pre-test the first day or first week sour youth to the program? Would a test be taken seriously? Would youth be able to read it? Would the results be meaningful? Would the evaluation be done in time for the findings to be used?

It became clear that a definitive evaluation could not be done, but that if these and other obstacles to a conclusive evaluation were ever to be overcome, pilot efforts should be initiated. The term "evaluation" was dropped in favor of "survey" or "study". The survey was planned so that we could learn as much as possible about the programs and their effects while also studying the feasibility of conducting an evaluation of SPEDY's impact on career education learning.

STUDY DESIGN, PROCEDURES, AND MEASURES

Overview

The survey was designed to accomplish two major purposes. The first was to describe the SPEDY programs in such a way as to communicate the uniquenesses of the various approaches and to facilitate comparisons among them. The program descriptions presented in Part III serve this purpose.

The second was to collect initial evidence concerning the effects of the various SPEDY programs on participants' work transition skills or career education-related learning. This was accomplished through analyses of test data collected at the programs' beginning and end. All available SPEDY clients participated in the testing, with half of them receiving one of the tests (consisting of four scales) and the other half receiving the other test (consisting of five scales). Each youth took the same test in August that he or she had taken in June. Only participants with matchable pre- and post-test scores were included in the two primary types of analyses. The first type was conducted for each program separately to determine whether youth performed differently before and after the program. The second type of analysis compared the end-of-program performance of youth from the sixteen programs included in this component of the survey.

Program Descriptions

Each of four NED staff members was responsible for developing the program descriptions for three or four of the thirteen ODC areas. Each area was visited at least three times for this purpose.

The first round of visits, conducted in late May before the programs began, was devoted primarily to discussing the logistics of testing and to counting the areas' programs. Eight of the thirteen areas had one "program" each; the other five had two to six each. Multiple programs were found in areas that implemented distinctively different programmatic models for different groups of youth, such as 14-16 year-olds and 17-21 year-olds. The "program" served as the unit of analysis for the survey; there were 25.

During the second visits, in late June and early July, we used an unstructured interview guide based on our initial impressions of important program variables in talking with SPEDY staffs to learn more about the nature of their programs. Following these visits the NED staff discussed each program and finalized a set of characteristics which seemed to describe individual programs adequately while also highlighting their uniquenesses. A standard format for presenting this information was developed.

Each of us reviewed our first draft program descriptions (completed after the second visits), identified the missing information, and used the third visits to fill in these gaps. Second draft program descriptions were prepared after the final visits and submitted to the ODCs for review. A week or so later we telephoned our ODC contacts (usually the SPEDY director), at which time they either verified the draft or corrected inaccuracies before we prepared final descriptions.

Most of the program description information was collected through conversations with 105 SPEDY staff members. In some areas the NED staff visited each county but in others this was unnecessary. We also observed classes, talked with youth and work site supervisors, and examined curriculum guides, lesson plans, and other materials.

Program descriptions concentrate on career education components and include just enough information about work experience components to provide profiles of the overall programs.

Whenever any program design is implemented by more than one staff member for more than one youth, the nature of the participants' experiences will inevitably vary. We found this as true for SPEDY as for most programs. Variations within programs were substantial in some cases. The largest within-program variations in the youth's experiences were in programs that were highly individualized by design and in programs where the individual counties or staff members planned activities (and often established objectives) independently, either because the area's planning was poorly coordinated or because individual counties or staff members were considered to be the most qualified to respond to their youth's needs.

We had difficulty in preparing the descriptions of the more heterogeneous programs. For example, a key section of the program description indicates the degree of emphasis placed on each of the nine outcomes studied in the testing component of the survey. We often found that if we asked three different staff members to rate the program's emphasis on one of the outcomes, we would get three different answers and each of them would qualify their response with, "That's for the group overall. Actually, it depends on the needs of the individual youth."

Since we were convinced that within-program variations, however notable, were nonetheless smaller than the differences across programs, we were persistent about resolving these dilemmas. Where possible, we met with the program's staff as a group and helped them reach consensus. In other cases we interviewed staff members separately and averaged their answers. In still other cases we relied on lesson plans or curriculum guides, rather than staff estimates, for such data as the amount of time spent in various types of career education activities.

The program descriptions are largely self-explanatory, but a few clarifications are in order. The "SPEDY Staff" section addresses only those with the most direct involvement in planning and implementing youth activities. Not mentioned are van drivers, clerical staff, and individuals responsible for business affairs and record-keeping.

The "Participants" section includes the area's criteria for selecting among income-eligible applicants. These are locally-determined policies for prioritizing potential clients who meet the requirements established by the Department of Labor.

The "Career Education Component" section includes estimates (in most cases, rather gross ones) of the amount of time each youth spent in various types of career education activities. These activity categories were defined by NED as per Figure 3 after the second round of site visits revealed considerable confusion over the terms we had been using. (Especially "hands-on activities," which we have since eliminated from our vocabulary.)

FIGURE 3

SPEDY

Definitions of Career Education Activity Categories

Field trip. A group of more than 5 youth visiting a work place with the primary purpose of investigating career opportunities.

Mini field trips. Operationally, same as field trip, but conducted in groups of two to five youth.

Individual field trip. Operationally, same as field trip, but involving only one youth at a time. Includes shadowing.

Guest speaker. A person other than the program's instructor coming to a training center or other location other than his/her work place to discuss his or her own work, the work world in more general terms, or other career-related topics. (Includes, for example, military and college recruiters.)

Job task sampling. Involves participants in performing real or simulated job tasks. The primary purpose is to learn about the nature of particular occupations so that participants may assess their interest in the occupation and/or to learn about our economic system, including such concepts as organizational structure, division of labor, overhead, profit, etc. These are often group activities. They do not necessarily involve "manual" tasks, though they may. Examples include managing a mock corporation, designing a house, soldering electrical components, serving a meal.

Group discussion. Verbal interaction among group members other than that associated with other activities defined here. Includes group counseling, role-playing, "ice-breaker" activities, etc.

Demonstration/lecture. The instructor is the focus of attention as he/she presents information, demonstrates techniques, or expresses beliefs to a group. Typically involves responding to participants' questions and comments; different from group discussion in that participants' communications, if any, are directed more toward the instructor than toward other participants.

Individual counseling. Provided by SPEDY staff. May concern work adjustment, career plans, personal problems, etc.

Independent study. Requires mental activity of the participant but no interaction with other people. Includes reading and writing, taking career guidance tests, and using workbooks or individualized AV materials. Also includes group use of AV materials which require active involvement of participants, such as tests presented via AV media.

Group AV activities. Films, filmstrips, cassettes, or other AV materials presented to groups except those included in the definition of independent study.

Program Effects Chosen for Investigation

Since this was a short-term study conducted with limited resources, NED and IOMD decided to limit the survey's evaluation component to assessments of the programs' impact on career education outcomes measurable with machine-scorable tests. The question then became which career education objectives the SPEDY programs were intended to achieve.

In early April, 1978, representatives of NED, IOMD, and each of the thirteen ODCs and their sponsoring agencies met to discuss the survey design. During that meeting the ODC and sponsoring agency representatives reached consensus concerning the career education-related skills, attitudes, and information their SPEDY programs emphasize. Nine objectives were considered important by consensus, although not all were expected to be emphasized by all programs. Because comparative analyses of the programs' effects required common data for all programs, we agreed to use the same test battery throughout the balance-of-state, but to indicate clearly that the programs should not be held accountable for achieving the objectives they were not designed to address.

Each ODC priority-ranked the nine outcomes. They appear below beginning with the one given the highest average priority in April. Priority ratings of high, medium, and low made during the summer by SPEDY personnel are included in program descriptions and in Part II:

1. Self esteem
2. Attitudes toward work
3. Attitudes toward learning
4. Career decision-making skills
5. Sense of control over own destiny
6. Knowledge about a variety of occupations
7. Occupational knowledge relevant to all careers (not specific to given occupations)
8. Job-seeking skills
9. Elimination of career-related sex-biased attitudes

Instruments Custom Designed

NED agreed to identify or develop tests for these outcomes with the following constraints in mind: 1) Total testing time was not to exceed two hours, at an absolute maximum; 2) The reading difficulty of the tests was not to exceed the sixth grade level, since some SPEDY youth have limited reading skills; 3) SPEDY participants range from 14 to 21 in age and are of diverse educational and work backgrounds. This precluded, for example, test items which assume that the respondent is in school or that he/she has been previously employed. Additional constraints of concern to NED were that pre-testing was less than two months away and that the budget allowed only one dollar per participant for test materials and scoring.

A review of available career education measures revealed only one which could meet our needs--the Nowicki-Strickland Internal-External scale--and even it contained some items inappropriate for the SPEDY population. For the remaining eight outcomes we were unable to find tests that met the survey requirements and also demonstrated reasonable validity. (Even though we would have settled for face validity as judged by us.)

So we decided to develop a new test battery, use it for the survey, analyze its psychometric properties for the SPEDY population, and hope that we would find the scales sufficiently reliable to allow reasonable confidence in the survey results.

Although it is standard practice to field-test instruments before using them in an evaluation study, there was no time for anything more than a very small-scaled field test to estimate testing time requirements. It is also unusual to use the same data to investigate programs' effects and the measures' psychometric properties, but we see this departure from tradition as desirable; it is better to know the properties of the data you are actually using than the results obtained by someone else who used the test under different conditions with different populations.

Fortunately, the internal consistency of the measures was respectable--in the 60's, 70's, and 80's for total groups and only occasionally dipping into the 50's for age-sex subgroups. We consider these levels acceptable for measures used to evaluate group performance, especially considering that we were not aiming for highly homogeneous scales but rather for scales that would cover the domain defined by each of the nine career education objectives as broadly as possible.

Analyses of the pre-test scores revealed the age differences we expected, with older youth generally scoring higher than younger participants. Exceptions to these trends past age 17 or 18 are probably attributable to older SPEDY participants' being less representative of the economically disadvantaged non-metropolitan population than are the younger youth. On all but two scales--Self Esteem and Sense of Control--females scored higher than males; on those two scales sex differences were not significant.

Score distributions closely approximated normality on all scales but one. Pre-test scores were high on the Attitudes toward Learning scale, with many youth scoring at a near the maximum possible score. This was especially true for the 18-21 age group. The high scores on this scale are inconsistent with a common stereotype of the SPEDY participant, but we are as willing to discredit the stereotype as the test scale.

The content of each scale is described below in order to clarify the meaning of the survey findings. Readers with interests in measurement are encouraged to consult the appendices for further details. The test booklets and scoring key appear as Appendix A, a description of the test and its development as Appendix B, and a technical report of the scales' psychometric properties as Appendix C.

Descriptions of the Test Scales

In order to minimize testing time, the nine scales were printed on two forms--Form A, with four scales and Form B, with five. Test time, as a result, averaged 45 minutes.

Form A

Work-Related Attitudes
Sense (Locus) of Control
Job-Seeking Skills
Job-Specific Occupational Information

Form B

Self Esteem
Career Planning
Attitudes toward Learning
General Occupational Information
Sex Equity

Work-Related Attitudes. These 32 items reflect attitudes which presumably underlie good work habits. Specifically, the items address:

- -Desire to work
- -Desire to get along with others in the work setting
- -Acceptance of supervision and work regulations
- -Sense of responsibility to employer and co-workers
- -Dependability with respect to punctuality and regular attendance at work
- -Inclination to perform well without close supervision
- -Concern for quality work, desire to do her/his best
- -Desire to learn and to advance in a job

Sample items:

I would feel good about working really hard to help meet a company deadline.

A. disagree B. don't know C. agree

If there is anything you do not like about your job, you should quit.

A. disagree B. don't know C. agree

Sense of Control. This 25-item scale is a modification of the 40-item Nowicki-Strickland Internal-External Scale (*Journal of Consulting and Clinical Psychology;* 1973, Vol. 40, 148-154).

A high score suggests that the individual has a sense of control over her or his own destiny and environment and a low score suggests a sense of powerlessness, or a belief that the person is controlled largely by society, other individuals, chance, and fate. We would expect a person with a strong sense of control to be inclined to make career decisions, to take action toward implementing them, and to engage in other self-improvement activities because she or he would expect these efforts to pay off. A person with a weak sense of control, on the other hand, would be futilistic--less inclined to take action because he or she would have little reason to believe it would make a difference.

The modifications of the Nowicki-Strickland scale consisted primarily of eliminating items pertaining to the role of student or to family relationships, rewording several items about parents to make them applicable to employment settings, and changing outmoded or inappropriate words (such as "other children" to "other people"). The yes-no response scale was retained from Nowicki and Strickland's instrument.

Sample items:

Most of the time, do you feel that you can change what might happen tomorrow by what you do today?

A. yes B. no

Do you feel that one of the best ways to handle most problems is just not think about them?

A. yes B. no

Job-Seeking Skills. This 21-item scale measures knowledge about job-seeking. Eleven of the items concern employment interviews--their purpose, the importance of appropriate dress, and what to talk about during them. The other items address sources for locating potential employers, interpreting want ads, completing job applications, and the desirability of following up on initial contacts with potential employers.

Sample items:

During a job interview you should let the interviewer ask all the questions.

A. true B. false C. don't know

All job openings in a town are listed in the local newspaper.

A. true B. false C. don't know

Job-Specific Occupational Information. This 34-item scale is designed to measure knowledge of particular occupations in terms of the interests, values, and skills of workers in the occupations and the working conditions, educational requirements, and advancement potential of various jobs. White collar and blue collar occupations are represented about equally, as are jobs requiring various amounts of training or education.

The scale is best suited for evaluating programs designed to develop an awareness of a wide variety of occupations. Even then, it samples a very small percentage of all relevant facts about all possible occupations. The test was not expected to be sensitive to the effects of programs designed for in depth investigation of a limited range of career opportunities of interest to the learner.

Sample items:

Who rarely works at night?

A. firefighter
B. telephone operator
C. electrician
D. airline pilot

Who usually has the greatest opportunity for advancement?

A. computer programmer B. barber

Self Esteem. This 22-item scale is designed to measure the degree to which the individual perceives him/herself as a valuable person. Individuals with high scores describe themselves as competent, confident, and worthy of high regard from themselves and others. They report believing that their strengths outweigh their weaknesses and that their futures are promising.

Sample items:

My life is really worth living.

A. strongly disagree B. disagree C. agree D. strongly agree

I do not usually volunteer to do things because other people can do them much better than I can.

A. strongly disagree B. disagree C. agree D. strongly agree

Career Planning. This scale is based on a model which views the components of career decision-making as:

1. Attitudinal preparation to make a decision
2. Self appraisal of interests, values, aptitudes, skills
3. Search of information about career options
4. Evaluation of various career options against personal preferences and characteristics, placing the greatest weight on factors of highest personal importance
5. Tentative career choice

These components are not necessarily consecutive processes and are often simultaneous. Also, the model is a closed system; the cycle may be repeated a number of times throughout a lifetime both before and after the individual begins educational preparation for a career or enters the labor market.

The scale's 44 items address the following:

-Recognition of the importance of one's career in his/her life (4 items)

-Recognition that a variety of career options are available (3 items)

-Appreciation of the value of career planning (6 items)

-Appreciation of the importance of taking personal responsibility for career decisions and confidence in own ability to make sound decisions (4 items)

-Awareness of self-appraisal and career information-seeking techniques (3 items)

-Involvement in self-appraisal, career information-seeking, and career option evaluation (14 items)

- Inclination to consider the long-term impact of immediate career decisions (3 items)
- Recognition of (relatively) irrelevant or short-sighted criteria used by some in evaluating career options (5 items)
- Belief in the reversibility of prior career decisions (2 items)

Sample items:

Have you thought about what kinds of jobs you would be good at?

A. yes, alot B. yes, some C. no

When I want a job I will take whatever looks best at the time, so thinking about careers is not important for me.

A. disagree B. don't know C. agree

Knowing someone who does not like their job is a good enough reason to stay away from that line of work yourself.

A. disagree B. don't know C. agree

Attitudes toward Learning. Unlike most tests of this type, the 21-item Attitudes toward Learning scale is not concerned with how much the individual likes school or feels comfortable in the student role. Six items address perceived relevance of school learning. The remaining items deal with attitudes toward learning in general (7 items), keeping abreast with current events (2 items), and learning in the employment setting (6 items).

Sample items:

My high school courses will help me in a job.

A. disagree B. no opinion C. agree

If you ask questions at work people will think you are stupid.

A. disagree B. no opinion C. agree

General Occupational Information. This is a 22-item multiple-choice test of career knowledge which is not specific to particular occupations. The items concern such things as income taxes, fringe benefits, labor unions, financial assistance for college, the reasons for different amounts of pay, and differences among various methods of payment.

Sample items:

You can forget about going to college unless your parents make alot of money.

A. true B. false C. don't know

> For most jobs, social security payments are taken out of your paycheck even if you do not plan to collect social security when you are older.
>
> A. true B. false C. don't know

Sex Equity. These 20 items are imbedded in the other four scales of Form B, with item formats and response options varying so that sex equity items resemble other items surrounding them.

The scale is designed to measure attitudes concerning the degree to which one's gender should influence his or her career. Specific items address whether the individual allows his or her sex to influence his/her career decisions and attitudes toward: men entering female-stereotyped occupations and vice versa; whether a man's career is a more serious matter than a woman's; the desirability of women working outside of the home, and; whether men should be given an advantage in the employment market.

Sample items:

> A husband should decide for his wife whether she should work or not.
>
> A. disagree B. no opinion C. agree
>
> Women should choose jobs that do not take alot of training.
>
> A. disagree B. no opinion C. agree

Testing Procedures

Tests were administered by SPEDY personnel during the first week of their programs (late May or early June) and again toward the programs' end in August. Most areas administered the post-test during the next-to-last week of their programs rather than the last week because SPEDY enrollments typically drop off substantially toward the beginning of school. The span between pre- and post-testing varied somewhat from area to area but averaged eight weeks.

Area H did not administer pre-tests until early July, after some career education had taken place. In the other areas, all or nearly all of the career education activities occurred between pre- and post-testing.

SPEDY personnel were provided the instructions for test administration appearing as Appendix D. Since facilities, schedules, and staff perceptions of participants' reading ability varied from area to area, it was necessary to make the instructions quite flexible. Some tests were administered individually, but most were administered in groups. Some were read aloud to participants, but most were not. The testing was not timed, but took about 45 minutes.

Sampling

Participants whose social security numbers end in even numbers took Form A on both testing dates; Form B was administered to those with odd numbers. There were some deviations from this sampling plan; Area A used assigned code numbers rather than social security numbers and Area J, where the career education program is conducted at a central facility, administered Form A to participants from five counties and Form B to those from the other four counties. However, it is our judgement that this deviation did not seriously violate effective random sampling of 50 percent of each program's participants for each measure. Areas A and B chose to administer both forms to all participants, but again, this should not bias the results.

Elimination of Participants from Analyses

The final analyses of program effects involved only participants who: 1) were tested both at the program's beginning and end, 2) took the same form of the test on both occasions, and 3) used sufficiently similar identification numbers on both tests to allow matching of their pre- and post-test scores. The first condition eliminated both late enrollees and early terminators; thus, the survey results reflect the progress only of participants who were enrolled throughout the summer (or most of it).

For the pre-test the machine-scorable answer sheets were precoded by NED as Form A or Form B, but many youth erased or changed the code. This unanticipated problem led to the development of a series of computer programs designed to decipher which test form each answer sheet represented and to eliminate, before test scoring, cases where it could not be determined with reasonable confidence which test the youth took and cases where answer sheets had obviously been filled in randomly. These procedures are described in Appendix E. On the post-test, participants filled in the form code themselves; they were checked in the same manner as pre-tests.

Another process of data elimination was carried out in the test scoring program, which counts the number of unanswered questions on each scale. A youth's score was indicated as missing if more than fifteen percent of that scale's items were left blank, although his or her scores on the other scales were unaffected by this procedure. Youth were eliminated from analyses of the test scales for which they had no scores, but included in all others. This accounts for the small differences in N's for the final analyses of different test scales on the same form.

Elimination of Programs from Analyses

Area I operated six separate programs. Although the pre- and post-tests were administered, the Area I staff were unable to supply NED with adequate information to determine which clients participated in which programs. Also, an unusually large number of answer sheets were missing identification numbers and over 100 post-tests were completed on xeroxed copies of the machine-readable answer sheets. Since any analyses of Area I test data would be uninterpretable, these six programs were excluded from all analyses of program effects. However, the program descriptions are included in Part III.

Three programs with small enrollments could not be included because less than twelve participants had matching pre- and post-test data. Two of these programs were in Area K's Clark County (WORD and MORE) and the other was Area L's program conducted at Vincennes University.

Other Notable Instances of Missing Data

Area M mailed their post-tests to NED on two different dates. One batch arrived but the other remains somewhere in the U.S. Postal Service system. Orange, Washington, and Monroe Counties' data arrived; Lawrence and Jackson Counties' were lost. Fortunately, both of Area M's programs had enough data to include in the analyses, although the exclusion of two counties may have biased the results.

Area J, as mentioned earlier, chose to administer Form A to participants from some of its nine counties and Form B to the others. In three counties, different forms were administered at pre-testing and post-testing, resulting in no matching data for these youth. Since there were no county variations in Area J's career education component, we judge this problem as minor.

Summary of Sample

Below is a summary of the extent of elimination to this point. Area I is excluded from these data:

Total number of participants enrolled at some time during the summer (IOMD data):		5980
Number of pre-tests received by NED:		4573
Form A:	2095	
Form B:	2136	
Eliminated before scoring:	342	
Number of post-tests received by NED:		3107
Form A:	1393	
Form B:	1339	
Eliminated before scoring:	375	
Number of matchable pre-post pairs:		1800
Form A:	884	
Form B:	916	

Final analyses involved 39% of the youth who took the pre-test and 30% of the youth enrolled in SPEDY during the summer.

In summary, the reasons for enrollees' exclusion from final analyses were:

- Youth enrolled after pre-testing or terminated before post-testing, or both. This accounts for a large proportion of exclusions, but the turnover rate is unavailable.
- Enrollee was not tested on one or both occasions.
- It could not be determined which form the youth took on one or both occasions.
- One or both tests were answered in an obviously random manner.
- One or both tests lacked the youth's social security number or assigned code.
- Youth took Form A pre-test and Form B post-test, or vice versa.
- Post-tests were lost in the mail.

Limitations of the Study

The study was planned as an exploratory survey, not as a definitive evaluation. Likewise, most of the programs' career education components are still at an experimental stage; some designs were newly instituted this year and others were substantially modified as a result of previous years' experiences. Some of the major factors indicating caution against over-interpretation of the study's findings are:

- -Possible SPEDY effects which were not investigated. Only nine short-term paper-and-pencil-measurable outcomes were studied. Behavioral changes and long-term impact were not, nor were the benefits to the community of work accomplished by SPEDY participants, nor were the benefits to youth and their families of SPEDY wages.
- -The studied outcomes were not clearly-established SPEDY goals. The April meeting of NED, IOMD, and ODC and sponsoring agency representatives was the first attempt to reach consensus regarding SPEDY goals for youth in Indiana's Balance-of-State.
- -The survey involved no full-scale measurement of youth's SPEDY experiences. Also, the efficiency and quality of the implementation of program models was not assessed. A sound plan, if poorly implemented, is not likely to generate positive outcome findings. A mediocre plan, if well-implemented, may. Particularly since many of the programs are new, some still-unsolved operational problems may have deterred their effectiveness.
- -The test instruments were experimental.
- -The testing conditions were poorly controlled.
- -Final analyses reflect the progress only of youth who remained in the program throughout the summer and completed the test properly.
- -The N's for final analyses were too small for the preferred statistical tests.

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PROGRAM CHARACTERISTICS

The 25 SPEDY programs clustered into three general categories, referred to as (1) 100% career education, (2) work experience + individualized career education, and (3) work experience + group career education are shown in Table 1.

The ten programs classified as 100% career education had no work experience component in the sense that participants did not work under the supervision of work site supervisors other than SPEDY staff. Most of these programs consisted of several modules, each devoted to exploring a career cluster. Job task sampling was a major activity of most of these programs and some of these activities resembled the work experience components of the other programs. For example, in a module for exploring the building trades, participants constructed outdoor storage sheds; in a Junior Achievement-type program, youth formed a corporation which produced and marketed rag dolls. Career exploration modules included study of career opportunities as well as involvement in job tasks typical of the career area. Other types of career education activities, such as counseling, practice interviews, etc., were either interspersed throughout the modules or conducted as a separate module.

In the fifteen work experience programs, the career education component consisted of from 12 to 53 hours and participants spent the rest of the summer on public sector work sites. Most of these youth worked under the supervision of work site supervisors who were not SPEDY staff members but who coordinated with SPEDY staff. The exceptions were at "special projects" work sites, where either a SPEDY staff member or an older SPEDY client assumed the supervisory role.

All four "work experience with individualized career education" programs involved some group career education activities but placed greatest emphasis on individual counseling and activities such as field trips, guest speakers, and independent study which were either planned in response to individual participants' needs or offered as optional activities to interested youth.

In the eleven "work experience with group career education" programs, youth assigned to different work sites congregated at a central location for career education activities, either at regular intervals throughout the summer or for several consecutive days. Individual counseling and other individualized activities were often included in these programs, but most career education instruction was conducted in groups of about 10 to 30 youth.

Both within and across these three categories, the programs varied considerably. Several key items included in program descriptions are presented in Table 1; more detail about each program is provided in Part III.

Table 1 SUMMARY OF PROGRAM CHARACTERISTICS

	STAFF			PARTICIPANTS	HOURS		GENERAL CATEGORY		
Area/Program	Director 12 months?	No. clients/CE staff	% CE staff returns	Distinguishing Characteristics	Hours, total	Hours, CE	100% career education	Work exp. + indiv. CE	Work exp. + group CE
Included in Analyses									
Area A	yes	22			300	18		X	
Area B	yes	32	59		360	32		X	
Area C	no	25	0		330	330	X		
Area D	no	152	0		300	27			X
Area E	yes	237	100		360	18			X
Area F	yes	55	20		300	17			X
Area G	yes	66	14		330	40			X
Area H	yes	77	0		360	12		X	
J-Career Expl.	yes	15	73	first yr. in SPEDY	320	40			X
J-Career Enrich.	yes	16	73	in SPEDY before	320	40			X
K-OAT	yes	8	0	14-16; Floyd Co.	140	140	X		
K-WE: 14-16	no	38	0	14-16; Other Co.	240	36			X
K-WE: 17-21	no	58	25	17-21	240	53			X
L-Work Exp.	yes	96		all others in L	300	28		X	
M-Career Expl.	no	9	na	mostly younger	265	265	X		
M-Work Exp.	no	83		mostly older	280	26			X
Not included in analyses									
I-Slides	no	na	na	none	300	300	X		
I-Drama	no	na	na	14-18	300	300	X		
I-Modular	no	na	na	5 participants	300	300	X		
I-Rotating	no	na	na	14-18	300	30			X
I-Cont. WE	no	na	na	none	300	300	X		
I-Work Exp.	no	na	na	none	300	30			X
K-WORD	no	20	50	14-16; Clark Co.	180	180	X		
K-MORE	no	20	50	14-16; Clark Co.	180	180	X		
L-Vincennes	yes	12	0	14-15; Knox Co.	64	64	X		

Area/Program	EMPHASIS ON SURVEY OUTCOMES H = high M = med. L = low									TIME SPENT IN ACTIVITY TYPES (HOURS) * = Major strategy									
	Work-Related Attit.	Sense of Control	Job-Seeking Skills	Job-Spec. Occ. Info.	Self Esteem	Career Planning	Attit. tow. Learning	Gen. Occ. Info.	Sex Equity	Field trips	Mini field trips	Ind. field trips	Guest speakers	Job task sampling	Group discussion	Demonstration/lecture	Ind. counseling	Independent study	Group a/v activities
Included in Analyses																			
Area A	H	L	M	M	M	M	L	L	L	6		3				2	7*		
Area B	H	M	H	L	H	L	H	L	M	5	5		5		3	3	8*	3	
Area C	H	L	H	H	H	M	M	L	H	24			9	142*	25	70		48	12
Area D	M	M	M	H	H	M	H	L	H	3			4		5	5		3	7
Area E	L	M	M	H	M	H	M	H	L						2	7		7	2
Area F	H	L	M	H	M	L	M	H	L				14			2			1
Area G	M	M	H	H	M	H	M	M	L	12			2		8	10			8
Area H	H	M	M	H	M	M	H	M	L	6							6*		
J-Career Expl.	H	M	H	H	M	H	H	M	H				3	25*	2				3
J-Career Enrich.	H	M	H	H	M	H	H	M	H				2	28*	2				1
K-OAT	H	H	M	M	H	L	M	L	M	12			14	70*		21	2	7	14
K-WE: 14-16	H	M	H	L	H	M	M	H	L	12			4	2	4	4		4	6
K-WE: 17-21	M	L	M	H	L	L	M	M	L	30*			5	1	4	3	1	4	7
L-Work Exp.	H	M	M	M	H	H	M	M	L	7	7					7	7		
M-Career Expl.	H	H	M	M	H	M	M	M	M	4	3	6		227*	12	10	3		
M-Work Exp.	H	M	M	M	H	H	M	M	L	4					12	8	2		
Not included in analyses																			
I-Slides	H	H	H	M	H	H	M	M	H	2			2	273*	12	3	2	2	5
I-Drama	H	M	M	H	H	M	M	M	M	4	1		1	274*	9		3	2	6
I-Modular	H	H	H	M	L	M	H	M	L		10		5	220*	65				
I-Rotating	H	H	M	L	H	H	M	L	M					2	11	2	4		11
I-Cont. WE	M	H	M	M	H	H	M	M	L	2			2	275*	8	3	3	1	6
I-Work Exp.	M	H	M	M	H	H	M	M	M	2			2	3	12	2	2	1	4
K-WORD	H	M	L	M	H	L	H	M	L	27			9	90*	18		18	18	
K-MORE	M	H	M	M	H	M	H	H	L	18			18	9	63*	9	9	36	18
L-Vincennes	L	L	L	H	L	L	L	M	M	4				18		39*			3

PROGRAM EFFECTS*

Test scores were subjected to two types of analysis, one to investigate the effects of each program individually, and another to compare the terminal achievement of youth in different programs.

Within-Program Analyses on Test Scores and What They Mean

Within-program analyses were concerned with the question, "During the course of their SPEDY experience, was there a reliable change in the program's participants' characteristics measured by the nine test scales?" By *change*, we mean either an improvement in average test scores or a loss; both possibilities were investigated. By *reliable* we mean that the difference between pre- and post-test scores was large enough and consistent enough for us to expect similar differences if another group of similar youth participated in the same program.

Even if changes are reliable, we cannot be certain that SPEDY caused the differences, since other things take place in participants' lives during the course of a summer. On the other hand, the eight-week average span between pre- and post-testing was short enough so that reliable changes are not likely to result from maturation, and the number of cases where we found no significant (reliable) differences makes it seem unlikely that the experience of taking pre-tests affected post-test results to any notable degree. In short, we consider it within reason to attribute reliable changes to SPEDY. This should be qualified with a reminder that testing conditions were not tightly controlled; if the same youth took the pre- and post-tests under substantially different circumstances, this could bias the results. Also, the absence of measurable change does not necessarily mean that no change occurred.

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*Since this study generated mass quantities of descriptive and inferential statistics, the numerical detail of the results presented here is less than is usually found in evaluation reports. Part III includes slightly more data for each program, such as pre- and post-test means and standard deviations. Anyone in need of complete data will be welcomed at the NED offices to examine our 31.7 cm. stack of computer print-outs and two tapes of raw data files.

The first series of analyses involved all of each program's participants with matching pre- and post-test scores, regardless of their age or sex. For each of 16 programs, t-tests for correlated samples (alpha=.10, two-tailed) were performed for each of the nine test scales. The results of these tests indicate the reliability of differences (either positive or negative) between pre- and post-test means for the group as a whole.

It seemed likely that the effects of some programs may be different for older and younger participants or for young women and young men. Therefore, four more series of t-tests were conducted--one each for 14-16 year-olds, 17-21 year-olds, males, and females. These results indicate the reliability of each program's effects for these sub-groups separately.*

Because inferences from small samples can be highly suspect, the NED staff decided that no analysis would be conducted if the number of participants included in it would be less than twelve. This excluded some programs from the separate analyses for age and sex groups. This also explains why separate analyses were not performed for 14-16 year-old males, 14-16 year-old females, etc., and why only two age groups were used rather than the three we planned originally.

Inferential statistics can be misleading. Whether a difference between pre- and post-test performance is found reliable depends not only on the amount of change, but also on the number of participants included in the analysis and on the consistency of changes. If a mean difference is large, but the amount of change differs a great deal from client to client, the difference may not be statistically significant. On the other hand, a very small change can be "significant" if it is highly consistent or based on a large number of youth. Some statistically significant differences are so small as to be of no practical significance.

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*All summer we looked forward to the rare opportunity to use a multi-factor analysis of variance design instead of the usual t. For within-program analyses we planned to use a three-way analysis of variance with time (pre-post) as a within-subjects variable and sex and age as between-subjects variables. The main effect of time would be of primary interest, with interactions between time and sex, age, and sex X age of secondary interest. However, only four programs had sufficiently large N's to separate participants into four age-sex groups without one or more of the cells' N's falling below twelve. Besides, we had too little time to recode the data as needed for this analysis or to decipher the perplexing documentation for the only available statistical package that would perform it. We did perform two-way (age by sex) analyses of variance on gain scores from the four programs with sufficient N's and found only one of 36 age X sex interactions significant at the .10 level, which makes us doubt that interactions were much of a problem in the other programs.

Readers are therefore encouraged to examine the *magnitude* of reliable changes. There are no universally-accepted standards of practical significance, but one-third the standard deviation (score spread) of the test's norming sample has been proposed as a minimum difference of practical significance.* Depending on the pre-test mean, this amount of change could be an average difference of as much as 13 percentile points.

Mean gains (the average post-test score minus the average pre-test score) are presented here as a proportion of the standard deviation of the norming sample, which consisted of all SPEDY participants with scorable pre-tests (see Appendix C). This was done primarily to facilitate evaluations of the practical significance of reliable gains, but it also allows comparisons of results from different test scales. For example, if a program's mean gain (in standard deviation units) was considerably larger for Career Planning than for Work-Related Attitudes, this would suggest that the program was more effective in developing career planning skills than positive work-related attitudes. Similar comparisons of raw gain scores would be misleading.

One other statistical fluke deserves mention. With the standard of statistical reliability used here, we would expect about five out of every 100 analyses to show "significance" in the positive direction and five in the negative direction *purely by chance*. Since the results of 599 t-tests, 18 analyses of covariance, and several miscellaneous inferential procedures are presented here, this is important to keep in mind. Even if no real change occurred in participants of any of the programs, about 30 of the t-tests should indicate "reliable" improvement and 30 "reliable" decline. This phenomenon is true in all research involving inferential statistics and is not unique to this study.

**A Practical Guide to Measuring Project Impact on Student Achievement*, by D. Horst, K. Tallmadge, and C. Wood of RMC Research Corporation, 1975, ERIC number ED 106376.

Across-Program Analayses on Test Scores and What They Mean

Comparisons of the effects of various programs were concerned with the question, "Do participants' average end-of-summer test scores differ from program to program?" The analysis of covariance was used, with pre-test scores as the covariate, post-test scores as the dependent variable, and program as the independent variable. The analysis of covariance adjusts each program's post-test mean to account for variations among participants' pre-test scores; the post-test mean is adjusted upward for programs with low pre-test means and vice versa.

The relative magnitude of adjusted post-test means should be loosely related to the relative gains demonstrated by the various programs, but the analysis of covariance is not directly concerned with participants' changes *per se*. If all programs have similar effects--be they positive, negative, or neither--the analysis of covariance results will be non-significant. Other explanations for non-significant results from these analyses include differences among programs' mean pre-test performance and differences among programs' correlations between pre- and post-test scores, both of which contaminated these results to some extent.*

Analyses of covariance were performed separately for the two age groups, where only programs with N's of twelve or higher were included. We hoped that the results would be helpful in identifying the "best" characteristics of programs for 14-16 year-olds and for 17-21 year-olds. As it turned out, though, the results of the t-tests are probably more revealing. Analyses of covariance were not conducted for females and males separately or for combined groups.

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*One-way analyses of variance on pre-test scores showed differences (alpha = .10) among programs for 14-16 year-olds on Work-Related Attitudes, Sense of Control, Job-Seeking Skills, and Job-Specific Occupational Information and for 17-21 year-olds on Attitudes toward Learning. The range of pre-post correlations was large on some scales, as seen in Appendix C.

General Trends in Test Results

Table 2 summarizes the results of the t-tests where all participants were combined into a single group for each program. Twenty of the 144 differences were reliable in the positive direction and ten in the negative direction. Gains were most common on the Sex Equity, Job-Seeking Skills, and Career Planning scales; losses were most common on Attitudes toward Learning. For its participants overall, Area L's Work Experience program, with an individualized career education component, was most effective in terms of the number of reliable gains (four); Area K's Occupational Awareness Training program (100% career education) had the most improvements of practical significance (two).

A chi-square analysis revealed no relationship between programs' stated emphasis on outcomes (high, medium, or low) and the results of these t-tests (positive, negative, or no differences). (Chi-square [4] = .40, $p > .10$.)

Table 3 summarizes the results of t-tests for each of two age groups. For 14-16 year-olds, ten of the 122 analyses resulted in significant gains and fourteen in reliable losses. The 17-21 year-old results show no evidence of harm and nine of 78 t's were positive and significant. The Attitudes toward Learning scale accounted for half of the 14-16 year-olds' negative differences and also for the discouraging results on this scale of the combined-age groups.

With positive results on six of nine scales, Area L's Work Experience program demonstrated the most overall career education achievement for 14-16 year-olds, but it showed no effects on 17-21 year-olds. Area K's Occupational Awareness Training program had the same encouraging results for 14-16 year-olds as shown in Table 2; OAT had no participants over sixteen. The program in Area E and Area J's Career Exploration program both demonstrated reliable growth of practical significance for 17-21 year-olds on two scales. Both of the programs are of the work experience + group career education type.

Overall, Table 3 suggests that SPEDY is of greater benefit to older youth than to younger participants in terms of the nine outcomes measured by the test scales.

Table 2

Summary of within-program t-tests. All ages, both sexes combined

A '+' indicates a reliable gain between pre- and post-testing.
A '-' indicates a reliable loss.
α = .10, two-tailed.
A '*' indicates a reliable difference of at least 1/3 the standard deviation of the norming sample.

Program	Work-Related Attitudes	Sense of Control	Job-Seeking Skills	Job-Spec. Occ. Info.	Self Esteem	Career Planning	Attit. Tow. Learning	Gen. Occ. Info.	Sex Equity
A						-	-		
B	-							+	+
C							- *	- *	
D						+			+
E						+			
F			+						
G						+			+
H									
J-Car. Exp.								+	+
J-Car. Enr.							-		
K-OAT			+ *					+ *	
K-WE 14-16				- *					
K-WE 17-21			+						
L-WE			+	+		+			+
M-CE				-			- *		+
M-WE			+	+			- *		

Table 3 Summary of within-program t-tests. By age groups

'/' indicates an N of less than 12; no analysis performed

14-16 Year-Olds

Program	Work-Related Attitudes	Sense of Control	Job-Seeking Skills	Job-Spec. Occ. Info.	Self Esteem	Career Planning	Attit. Tow. Learning	General Occ. Info.	Sex Equity
A							-		
B	- *								+
C						-	- *	- *	
D							-		
E					-		-		
F			+						
G									
H									
J-Car. Exp.							-		
J-Car. Enr.	/	/	/	/		- *	- *		
K-OAT			+ *					+ *	
K-WE 14-16				- *					
K-WE 17-21	/	/	/	/	/	/	/	/	/
L-WE			+	+		+	+	+	+
M-CE				-			- *		
M-WE	/	/	/	/	/	/	/	/	/

17-21 Year-Olds

Program	Work-Related Attitudes	Sense of Control	Job-Seeking Skills	Job-Spec. Occ. Info.	Self Esteem	Career Planning	Attit. Tow. Learning	General Occ. Info.	Sex Equity
A									
B								+	
C	/	/	/	/	/	/	/	/	/
D						+			
E	/	/	/	/		+ *	+ *		
F	/	/	/	/					
G	+					+			
H	/	/	/	/	/	/	/	/	/
J-Car. Exp.	/	/	/	/				+ *	+ *
J-Car. Enr.									
K-OAT	/	/	/	/	/	/	/	/	/
K-WE 14-16	/	/	/	/	/	/	/	/	/
K-WE 17-21			+						
L-WE									
M-CE	/	/	/	/	/	/	/	/	/
M-WE	/	/	/	/	/	/	/	/	/

Table 4 Summary of within-program t-tests. By sex

Males

Program	Work-Related Attitudes	Sense of Control	Job-Seeking Skills	Job-Spec. Occ. Info.	Self Esteem	Career Planning	Attit. Tow. Learning	General Occ. Info.	Sex Equity
A						-	-		
B	- *			-			-		
C							- *		+
D									
E									-
F			+ *			- *	-		
G	-						-		
H				+					
J-Car. Exp.	- *							+	+
J-Car. Enr.	/	/	/	/					
K-OAT			+ *					+ *	
K-WE 14-16	/	/	/	/	/	/	/	/	/
K-WE 17-21		+ *							
L-WE				+ *		+			+
M-CE							- *		+ *
M-WE	/	/	/	/	/	/	/	/	/

Females

Program	Work-Related Attitudes	Sense of Control	Job-Seeking Skills	Job-Spec. Occ. Info.	Self Esteem	Career Planning	Attit. Tow. Learning	General Occ. Info.	Sex Equity
A									
B	-	+	+			+ *	+ *	+ *	+
C					/	/	/	/	/
D					+	+			+
E			+ *			+			
F			+						
G	+ *		+			+			+
H									
J-Car. Exp.	+ *	+ *		-					
J-Car. Enr.	/	/	/	/					
K-OAT				+ *			+		
K-WE 14-16		+			/	/	/	/	/
K-WE 17-21			+				+		+
L-WE			+						
M-CE									
M-WE	+		+ *	+ *			-		

Table 4 suggests more strongly that SPEDY is of greater benefit to young women than to young men. Analyses of all available pre-test data showed that for seven of the nine scales, females enter SPEDY with more positive attitudes, greater knowledge, and better-developed skills (see Appendix C). They also seem to gain more and lose less than males during their SPEDY experiences. Of the 122 _t_-tests for males, 12 (10%) were positive and 13 (11%) were negative. Twenty-eight of 133 _t_'s (21%) were positive for females; 3 (2%) were negative.

Programs' apparently differential effects on males and females sheds a new light on the results shown in Tables 2 and 3. Area B, for example, looks mediocre overall and rather bleak for boys, but this work experience program with major emphasis on individual counseling was among the most effective for girls, with significant gains on six scales and three of them meeting our standard of practical significance. The negative difference on Work-Related Attitudes was the only bad news.

Two programs (Area G and Area J's Career Exploration--both of them of the work experience + group career education type) had negative effects on boys' work-related attitudes and positive effects on girls'. The same thing happened in Area B on Attitudes toward Learning. In only one instance--Area F, Job-Seeking Skills--did both males and females demonstrate reliable gains. The logical conclusion is unfortunately an impractical one: separate programs for males and females.

Overall, Area L's Work Experience and Area K's Occupational Awareness Training programs had the most positive results for males. Area L's program seems somewhat less effective for females. K-OAT appears about equally effective for girls and boys, but the reliable impact was on different scales for the two sexes. In addition to Area B and K-OAT, particularly positive results for young women were demonstrated in Areas D, E, G, J-Career Exploration, K-Work Experience for 17-21 year-olds, and M-Work Experience. These are all work experience + group career education programs.

It is unfortunate that seven of the ten "100% career education" programs were among the nine programs which could not be included in final analyses. The results of the three that were included (C, K-OAT, and M-CE) do not provide a strong case for eliminating the SPEDY work experience component in favor of a full summer of formal career education instruction. Only one of these programs

(K-OAT) demonstrated above-average effects and its results were rivaled by some less expensive programs. Before career education fans become too disheartened by these tentative findings, they should recall that real work experience supported with other career education activities is widely believed to be among the most effective career development techniques for adolescents and young adults.

Tables 5-13 present more detailed results for each scale, including each program's priority for the objective associated with the scale, N's, and mean gains in standard deviation units (recall that a gain of .33 can be considered a large one). Where N is less than twelve the gain column (and, of course, the significance column) are left blank. In the four cases where analyses of covariance showed differences among programs, the adjusted post-test means and their relative order are indicated (1 highest).

Table 5

Summary of Results - Work-Related Attitudes

Gain scores expressed as a proportion of the norming sample's standard deviation (7.59)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds			17-21 year-olds			Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	H	55	-.09		26	-.15		81	-.11		41	-.12		40	-.10	
B	H	119	-.38	-	41	-.10		160	-.31	-	85	-.43	-	75	-.17	-
C	H	28	.00		7			35	.04		16	-.12		19	.17	
D	M	28	-.16		22	-.69		50	-.39		25	-.59		25	-.20	
E	L	28	.28		10			38	.21		20	.26		18	.15	
F	H	36	-.23		10			46	-.20		19	-.43		27	-.03	
G	M	67	-.06		25	.23	+	92	.02		51	-.22	-	41	.33	+
H	H	30	-.15		10			40	-.20		16	-.34		24	-.11	
J-Car. Exp.	H	28	-.17		5			33	-.15		17	-.61	-	16	.35	+
J-Car. Enr.	H	8			12	.11		20	-.16		10			10		
K-OAT	H	29	.14		0			29	.14		16	.03		13	.27	
K-WE 14-16	H	23	-.19		0			23	-.19		9			14	.01	
K-WE 17-21	M	0			39	-.16		39	-.16		12	-.24		27	-.12	
L-WE	H	65	.10		36	.10		101	.10		47	.19		54	.02	
M-CE	H	47	-.10		11			58	-.05		27	-.21		31	.09	
M-WE	H	11			10			21	.19		5			16	.30	+

Work-Related Attitudes

Overall, this outcome was given the highest priority of the nine addressed in the survey, but little progress was made toward its achievement. Only one program showed a total group difference, and it was negative. Two programs with positive effects on girls had negative effects on boys; one of these programs' activities addressed work attitude development only indirectly and the other (Area C, where the 17-21 year-old gain was also positive) used lectures, group discussions, and work site supervisor training to develop positive work habits. Two programs with reliable differences for females--one of them positive and the other negative--both employed individual counseling as the major strategy for this objective. The Work-Related Attitudes scale results do not recommend any of the programs' models for accomplishing this objective for both sexes and age groups.

Table 6

Summary of Results - Sense of Control

Gain scores expressed as a proportion of the norming sample's standard deviation
(4.14)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds			17-21 year-olds			Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	L	55	-.17		26	-.02		81	-.12		41	-.17		40	-.07	
B	M	119	.10		41	-.08		160	.05		85	-.02		75	.14	+
C	L	28	.06		7			35	.05		16	.02		19	.08	
D	M	28	.04		22	.12		50	.08		25	.12		25	.04	
E	M	28	.60		10			38	.55		20	.81		18	.26	
F	L	36	.01		10			46	.03		19	.19		27	-.08	
G	M	67	.06		25	.06		92	.06		51	.09		41	.02	
H	H	30	-.17		10			40	-.17		16	-.41		24	-.01	
J-Car. Exp.	M	28	.12		5			33	.18		17	.03		16	.35	+
J-Car. Enr.	M	8			12	.38		20	.33		10			10		
K-OAT	H	29	.01		0			29	.01		16	.02		13	.00	
K-WE 14-16	M	23	.17		0			23	.17		9			14	.24	+
K-WE 17-21	L	0			39	-.12		39	.12		12	.50	+	27	-.05	
L-WE	M	65	-.01		36	.13		101	.04		47	.06		54	.02	
M-CE	H	47	.15		11			58	.11		27	.23		31	.00	
M-WE	M	11			10			21	.01		5			16	.06	

Sense of Control

This personality trait tends to be rather stable and perhaps difficult to change; reliable differences were sparse. Nonetheless, improvements were noteworthy in two cases.

Area J's Career Exploration Program, which demonstrated a gain of practical significance for young women, approached this objective through class discussions and through its discipline policies, which were designed to convey the staff's expectations of mature behavior and to avoid group punishment for individual's infractions. A large improvement was found for young men in Area K's Work Experience program for 17-21 year-olds, where this outcome was given low priority and no special efforts were made to achieve it.

Table 7

Summary of Results - Job-Seeking Skills

Gain scores expressed as a proportion of the norming sample's standard deviation (3.67)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds					17-21 year-olds			Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	Adjusted post-test mean	Rank of adj. post	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	M	55	.01		12.58	9	26	-.01		81	.00		41	-.01		40	.01	
B	H	119	-.05		12.62	8	41	.19		160	.01		85	-.15		75	.19	+
C	H	28	-.01		12.39	12	7			35	.07		16	-.24		19	.33	
D	M	28	.14		12.49	10	22	-.32		50	-.07		25	.09		25	.22	
E	M	28	.92		15.82	1	10			38	.71		20	.82		18	.59	+
F	M	36	.30	+	13.68	2	10			46	.28	+	19	.33	+	27	.25	+
G	H	67	.09		13.13	6	25	.01		92	.07		51	-.06		41	.23	+
H	M	30	-.07		12.17	13	10			40	-.08		16	-.19		24	-.01	
J-Car. Exp.	H	28	.03		12.49	10	5			33	-.03		17	-.29		16	.24	
J-Car. Enr.	H	8					12	.02		20	-.07		10			10		
K-OAT	M	29	.43	+	13.46	3	0			29	.43	+	16	.56	+	13	.27	
K-WE 14-16	H	23	-.06		12.70	7	0			23	-.06		9			14	.12	
K-WE 17-21	M	0					39	.18	+	39	.18	+	12	.16		27	.19	+
L-WE	M	65	.27	+	13.20	5	36	.01		101	.18	+	47	.14		54	.21	+
M-CE	M	47	.13		13.25	4	11			58	.17		27	.09		31	.25	
M-WE	M	11					10			21	.30	+	5			16	.41	+

Job-Seeking Skills

At least the cognitive aspects of job-seeking skills measured by this scale were conveyed well by a number of programs, especially to females. Differences among programs were significant for 14-16 year-olds ($F\,[12, 564] = 1.91$, $p < .05$), with Areas E, F, and K-OAT in the top three positions. In Areas E and F participants were trained in interviewing skills and job application procedures during orientation, then were interviewed by work site supervisors for their SPEDY positions. In Area K's OAT program job-seeking skills were taught primarily through group discussions. Other successful strategies for learning job-seeking skills included practice interviews, sometimes tape-recorded, sometimes with youth role-playing interviewers as well as interviewees; completing job applications; preparing personal resumes, or data sheets, and; studying and deciphering newspaper want ads and writing letters in response to them.

Table 8

Summary of Results - Job-Specific Occupational Information

Gain scores expressed as a proportion of the norming sample's standard deviation (4.61)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds			17-21 year-olds			Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	M	55	.79		26	-.07		81	.03		41	.19		40	-.13	
B	L	119	-.04		41	-.06		160	-.04		85	-.19	-	75	.12	
C	H	28	-.19		7			35	-.11		16	-.18		19	-.05	
D	H	28	.15		22	-.43		50	-.10		25	-.12		25	-.08	
E	H	28	-.07		10			38	.02		20	.10		18	-.06	
F	H	36	-.16		10			46	-.08		19	-.13		27	-.06	
G	H	67	.10		25	.12		92	.11		51	.05		41	.19	
H	H	30	-.04		10			40	.06		16	.31	+	24	-.11	
J-Car. Exp.	H	28	-.17		5			33	-.18		17	-.11		16	-.24	-
J-Car. Enr.	H	8			12	-.02		20	-.02		10			10		
K-OAT	M	29	.21		0			29	.21		16	.07		13	.38	+
K-WE 14-16	L	23	-.37	-	0			23	-.37	-	9			14	-.19	
K-WE 17-21	H	0			39	.04		39	.04		12	.18		27	-.02	
L-WE	M	65	.23	+	36	.08		101	.18	+	47	.33	+	54	.04	
M-CE	M	47	-.25	-	11			58	-.22	-	27	-.14		31	-.29	
M-WE	M	11			10			21	.27	+	5			16	.43	+

Job-Specific Occupational Information

Even though many programs devoted considerable amounts of time to investigating various career options, this scale's results revealed little of the learning that must surely have taken place. As can be inferred from our description of this test scale (written before the results were in), we are dissatisfied with this measure because it taps such a small segment of the body of career knowledge. Since most of the programs that dealt with job-specific occupational information in any depth were designed to allow participants to investigate careers of personal interest, it is not surprising that a broad survey test was insensitive to instruction. This does not, however, explain the instances of reliable losses; this may be a random result of performing a large number of analyses.

The Work Experience Programs in Areas L and M, where total group gains were reliable, both used field trips as a major strategy for this objective.

Table 9

Summary of Results - Self Esteem

Gain scores expressed as a proportion of the norming sample's standard deviation (7.38)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds			17-21 year-olds			Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	M	21	-.03		63	.09		84	.00		45	-.13		39	.15	
B	H	124	.02		44	.08		168	.04		95	-.04		73	.13	
C	H	25	-.09		1			26	-.07		15	-.21		11		
D	H	32	.17		20	.16		52	.17		26	.08		26	.26	+
E	M	26	-.25	-	20	.01		46	-.14		18	-.25		28	-.06	
F	M	44	-.03		17	.03		61	-.01		27	-.12		34	.07	
G	M	54	.10		22	-.12		76	.04		32	.06		44	.02	
H	M	30	.05		9			39	.05		19	.06		20	.05	
J-Car. Exp.	M	38	.09		15	.26		53	.14		29	.16		24	.11	
J-Car. Enr.	M	13	.04		14	-.28		27	-.13		13	-.58		14	.30	
K-OAT	H	39	.06		0			39	.06		20	-.29		19	.19	
K-WE 14-16	H	15	.34		0			15	.34		7			8		
K-WE 17-21	L	0			42	.16		42	.16		16	.25		26	.11	
L-WE	H	69	.01		40	-.11		109	-.03		48	-.09		61	.01	
M-CE	H	34	-.04		11			45	.01		29	-.01		16	.06	
M-WE	H	10			11			21	.15		5			16	.08	

Self Esteem

Self esteem may be a more stubborn personality trait than sense of control. Even though its improvement was, on the average, one of the top two objectives of SPEDY, this is not reflected in the test results. Having just noted the fallacy of interpreting rare findings, we hesitate to make much of Area D's improvement for females, but they did it through class discussions, a drug education program, and guest speakers and films which demonstrated how people have overcome serious obstacles such as physical handicaps.

NED does not wish to assert that our scale is a more valid measure of participants' self esteem than are SPEDY staffs' observations, but a possibility worth considering is that the seemingly critical need for developing youth's self esteem is based on the pitiably negative self concepts of a relatively small proportion of clients they encounter. Pre-test results indicated that on the average, SPEDY participants' self-reported self esteem is on the positive side, with the mean at 42, the maximum possible score at 66, and the neutral point at 33. As an example, 80 percent either agreed (66%) or strongly agreed (12%) with the statement, "I have more strong points than weak points." Eighty-five percent either strongly disagreed (44%) or disagreed (41%) with "I wish I were someone else."

It could be that SPEDY youth systematically inflate their actual self esteem when responding to the instrument, and even if we are correct in suspecting that the "average client's" self concept is reasonably healthy, this does not mean that all efforts at developing youth's self esteem should be ceased. It may, however, be better to concentrate more of these efforts on individuals with a serious need for it.

Table 10

Summary of Results - Career Planning

Gain scores expressed as a proportion of the norming sample's standard deviation (10.78)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds					17-21 year-olds			Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	Adjusted post-test mean	Rank of adj. post	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	M	63	-.15		59.83	11	21	-.10		84	-.14	-	45	-.28	-	39	.02	
B	L	124	.02		60.96	8	44	.18		168	.06		95	-.18		73	.37	+
C	M	25	-.30	-	58.23	13	1			26	-.26		15	-.34		11		
D	M	32	.12		63.24	4	20	.31	+	52	.20	+	26	.08		26	.31	+
E	H	26	-.03		60.93	9	20	.51	+	46	.21	+	18	.07		28	.29	+
F	L	44	-.20		59.58	12	17	-.04		61	-.16		27	-.40	-	34	.04	
G	H	54	.08		62.57	5	22	.24	+	76	.13	+	32	-.01		44	.23	+
H	M	30	-.04		61.10	7	9			39	.03		19	-.08		20	.13	
J-Car. Exp.	H	38	.03		61.70	6	15	.09		53	.05		29	.04		24	.06	
J-Car. Enr.	H	13	-.35	-	56.89	14	14	-.09		27	-.22		13	-.36		14	-.08	
K-OAT	L	39	.05		63.03	3	0			39	.05		20	-.02		19	.13	
K-WE 14-16	M	15	.20		63.88	1	0			15	.20		7			8		
K-WE 17-21	L	0					42	.02		42	.02		16	-.30		26	.21	
L-WE	H	69	.20	+	63.86	2	40	.04		109	.14	+	48	.20	+	61	.10	
M-CE	M	34	-.05		60.57	10	11			45	.02		29	-.07		16	.18	
M-WE	H	10					11			21	.06		5			16	-.14	

Career Planning

The development of career planning skills was the third most-often achieved outcome for total groups. Although only one program demonstrated success for 14-16 year-olds or males, results were quite encouraging for older youth and females.

Area L's Work Experience program, effective for the younger and male groups, developed career planning skills through individual and small group counseling and Singer filmstrips used in an independent study mode. The analysis of covariance results for 14-16 year-olds ($\underline{F}$ [13 , 590] = 1.635, $\underline{p}$ = .071) also indicate Area K's Work Experience program as effective; this program also used group discussions and Singer filmstrips, but the materials were presented in a group mode.

Areas D, E, and G demonstrated positive effects on 17-21 year-olds and young women. In Area D this was accomplished through values clarification and goal setting activities, instructors' emphasis on the value of career planning, group discussions of participants' career plans, and of films presenting career planning problems. Area G used similar strategies in combination with career exploratory modules in the cluster of the youth's choice. Area E youth were administered vocational interest inventories and provided career materials for use in independent study.

Table 11

Summary of Results - Attitudes Toward Learning

Gain scores expressed as a proportion of the norming sample's standard deviation (7.06)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds					17-21 year-olds			Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	Adjusted post-test mean	Rank of adj. post	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	L	63	-.27	-	32.23	10	21	-.25		84	-.26	-	45	-.35	-	39	-.17	
B	H	124	-.08		32.91	5	44	.17		168	-.02		95	-.28	-	73	.33	+
C	M	25	-.50	-	30.25	13	1			26	-.47	-	15	-.63	-	11		
D	H	32	-.22	-	32.70	8	20	.05		52	-.11		26	-.17		26	-.05	
E	M	26	-.32	-	31.66	11	20	.35	+	46	-.03		18	-.12		28	.03	
F	M	44	-.10		33.34	4	17	-.13		61	-.11		27	-.25	-	34	.01	
G	M	54	-.17		32.97	5	22	-.04		76	-.13		32	-.28	-	44	.02	
H	H	30	-.24		32.36	9	9			39	-.19		19	-.04		20	-.34	
J-Car. Exp.	H	38	-.21	-	32.81	7	15	.02		53	-.14		29	-.07		24	-.24	
J-Car. Enr.	H	13	-.35	-	30.98	12	14	-.21		27	-.28	-	13	-.46		14	-.11	
K-OAT	M	39	.05		34.63	2	0			39	.05		20	-.13		19	.24	+
K-WE 14-16	M	15	.14		34.60	3	0			15	.14		7			8		
K-WE 17-21	M	0					42	-.04		42	-.04		16	-.44		26	.21	+
L-WE	M	69	.24	+	35.63	1	40	-.19		109	.08		48	.12		61	.05	
M-CE	M	34	-.51	-	30.14	14	11			45	-.43	-	29	-.56	-	16	-.20	
M-WE	M	10					11			21	-.35	-	5			16	-.27	-

Attitudes toward Learning

These findings are dismal for males and 14-16 year-olds, with reliable losses plentiful for both groups. The single encouraging note was in Area L's Work Experience program's improvement for younger participants, achieved primarily through individual counseling. A combination of this positive change and seven negative ones resulted in reliable differences in post-test performance across programs for 14-16 year-olds ($F [13, 587] = 2.711$; $p = .001$).

The situation is slightly more encouraging for females and older youth, but the results are of little help in identifying optimal strategies for programs serving both sexes and age groups. While Area B's individual counseling approach to improving attitudes toward learning had positive effects on young women, it had negative effects on young men. Area K's OAT program had success with girls through guest speakers, group discussions, and field trips, but no success with boys. The same was true of Area K's Work Experience program for 17-21 year-olds. In Area E, where good results of guest speakers' emphasizing the importance of learning in non-school settings were obtained for older participants, the results were negative for younger clients.

Table 12

Summary of Results - General Occupational Information

Gain scores expressed as a proportion of the norming sample's standard deviation (3.09)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds			17-21 year-olds			Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	L	63	-.17		21	-.06		84	-.14		45	-.09		39	-.20	
B	L	124	.11		44	.26	+	168	.15	+	95	-.13		73	.51	+
C	L	25	-.48	-	1			26	-.49	-	15	-.56		11		
D	L	32	.05		20	-.18		52	-.04		26	-.40		26	.32	
E	H	26	.00		20	.02		46	.01		18	.11		28	-.06	
F	H	44	.04		17	.02		61	.04		27	-.20		34	.23	
G	M	54	.01		22	.09		76	.03		32	.11		44	-.02	
H	M	30	-.02		9			39	.06		19	.02		20	.10	
J-Car. Exp.	M	38	.15		15	.41	+	53	.23	+	29	.30	+	24	.13	
J-Car. Enr.	M	13	-.05		14	.02		27	-.01		13	.07		14	-.09	
K-OAT	L	39	.44	+	0			39	.44	+	20	.66	+	19	.20	
K-WE 14-16	H	15	.19		0			15	.19		7			8		
K-WE 17-21	M	0			42	-.15		42	-.15		16	-.59		26	.11	
L-WE	M	69	.29	+	40	-.19		109	.12		48	-.03		61	.23	
M-CE	M	34	-.29		11			45	-.29		29	-.37		16	-.16	
M-WE	M	10			11			21	-.11		5			16	-.16	

General Occupational Information

Three programs demonstrated reliable improvements in the general occupational knowledge of the total group. In Area J's Career Exploration program this was accomplished through job task sampling, class discussions, and guest speakers from the State Police and armed forces. Area B placed low priority on this objective and employed no special career education strategies to achieve it; the reliable gains for females, 17-21 year-olds, and the group as a whole may have resulted from learning at the work sites. Area K's OAT program included general occupational information in filmstrips and lectures, but like Area B's program, OAT was not designed to stress this outcome even though the improvement was both reliable and large.

Table 13

Summary of Results - Sex Equity

Gain scores expressed as a proportion of the norming sample's standard deviation (7.48)
Alpha = .10, two-tailed, for tests of significance of gains.

		14-16 year-olds			17-21 year-olds					Total			Males			Females		
Program	Priority of outcome	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	Adjusted post-test mean	Rank of adj. post	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?	N	Mean gain	Gain significant?
A	L	63	.06		21	.17		26.50	4	84	.08		45	.05		39	.12	
B	M	124	.15	+	44	.09		25.16	7	168	.13	+	95	-.02		73	.32	+
C	H	25	.11		1					26	.09		15	.29	+	11		
D	H	32	.18		20	.23		25.90	5	52	.20	+	26	.14		26	.26	+
E	L	26	-.18		20	.21		26.83	2	46	-.01		18	-.31	-	28	.18	
F	L	44	.03		17	.04		25.14	8	61	.03		27	-.02		34	.08	
G	L	54	.14		22	.19		25.75	6	76	.16	+	32	.00		44	.27	+
H	L	30	.04		9					39	.02		19	.00		20	.03	
J-Car. Exp.	H	38	.10		15	.60	+	28.98	1	53	.24	+	29	.27	+	24	.20	
J-Car. Enr.	H	13	-.01		14	-.28		22.56	10	27	-.15		13	-.38		14	.07	
K-OAT	M	39	-.10		0					30	-.10		20	-.31		19	.13	
K-WE 14-16	L	15	.12		0					15	.12		7			8		
K-WE 17-21	L	0			42	.19		26.59	3	42	.19		16	-.03		26	.32	+
L-WE	L	69	.28	+	40	-.11		24.23	9	109	.14	+	48	.25	+	61	.05	
M-CE	M	34	.22		11					45	.23	+	29	.35	+	16	.03	
M-WE	L	10			11					21	-.18		5			16	-.08	

Sex Equity

Alleviating career-related sexist attitudes received the lowest average priority, but this objective was the most often achieved, with six programs demonstrating reliable total-group improvements. None of the total-group gains met our standard of practical significance, but this was due to large differences between programs' effects on younger and older participants and on males and females; no program demonstrated reliable gains for both 14-16 and 17-21 year-olds or for both males and females.

However, there were two programs with some evidence of effectiveness for both age groups and both sexes. One was Area J's Career Exploration program, which used the film "Freedom Train" and involved participants in exploring non-traditional career areas. This program demonstrated a remarkably positive impact on 17-21 year-olds which resulted in significant between-program differences for this age group ($\underline{F}$ [9 , 244] = 1.709, $\underline{p}$ = .088). Area D's only reliable sub-group gain was for females, but males' and both age groups' differences were positive, suggesting the possibility of effectiveness for all subgroups. Sex equity was a frequent topic of group discussions in this program.

Aside from these two programs, three showed reliable improvements for young women and three for young men. The three which were effective for females had no effects on males and vice versa. Success in reducing young womens' sex-stereotyped attitudes was demonstrated by: Area B, where non-traditional work site placements were made possible by local employers' increasingly open attitudes; Area G, through class discussions; Area K's Work Experience program for 17-21 year-olds, where this outcome was not emphasized, and; Area D discussed above. Effective programs for young men were: Area C, where each youth explored at least two career areas traditionally associated with the opposite sex; Area L's Work Experience program, which did not emphasize this outcome; Area M's Career Exploration program, through group discussions, and; Area J's Career Exploration program, whose strategies are discussed above.

Changes in Educational and Career Plans

Both forms of the test begin with questions regarding the participant's educational status and career plans. N's were too small and non-responses too frequent to make meaningful interpretations of changes in responses to these questions at the program level, but the aggregated results are interesting.

Of the 1800 individuals with matching pre- and post-tests, 117 reported in June that they did not intend to complete high school. In August, 30 percent of them had changed their minds and expected either to return to school (if they had already dropped out) or to remain there. Only 2.5 percent of the 1285 youth who planned to finish high school at the beginning of SPEDY were of different sentiments at post-testing.

The question, "Do you know what kind of work you want to be doing ten years from now?" was answered as follows:

		Pre	Post
1.	Yes. I know exactly what I want to do.	21%	21%
2.	Not sure, but I have some things in mind.	58%	56%
3.	Not sure, I just know what I do NOT want to do.	5%	4%
4.	No. I have no idea.	14%	11%
	No response	2%	8%

Of those who said "yes" on the pre-test, 28% gave the second answer after SPEDY, suggesting that they had reassessed their earlier plans. Most of those who had some ideas before the program still had ideas afterwards, but 13% changed their answer to "yes". Less than half of the youth who gave the (rather negative) third response on the pre-test gave it again on the post-test; their August responses were divided almost equally among the other three options (about 14% each). Forty-one percent of those who began the program with no ideas finished it with alternatives in mind (option 2).

Taking the view that career education seeks to encourage contemplation of the future but not necessarily hard-and-fast long-range career decision-making, NED considers this pattern of changes desirable.

Non-Positive Terminations

A non-positive termination is a SPEDY participant who leaves the program before its conclusion for undesirable reasons, such as being fired or resigning without entering another job or educational program. NED requested a list of non-positive terminations from each ODC but failed to follow up the request with subsequent reminders and received the lists from only five of the thirteen ODCs.

The pre-test data of 334 non-positive terminations from Areas B, C, E, G, and K were compared to those of all participants with scorable pre-tests. The non-positive terminations are included in the group of 4436 individuals whose pre-test results and age and sex distributions are described in Appendix C.

The only characteristic which distinguished non-positive terminations from the group as a whole is that they were twice as likely to be or to plan to be high school dropouts. About 11% of the total population indicated "I have not finished high school and DO NOT plan to," whereas 21% of non-positive terminations gave this response to the educational status question.

The age and sex distributions of non-positive terminations were not notably different from the population's, nor was the saliency of their career plans. Non-positive terminations' scores on the nine test scales were compared to the total population of participants of the same sex with Z-tests. Their scores were consistently below average, but not significantly lower. The lowest mean was .38 standard deviation lower than the population's for males on Attitudes toward Learning; the highest was .06 standard deviations above the population's mean for females on Work-Related Attitudes.

There is one other possible characteristic of non-positive terminations which NED observed only on a very informal basis but which IOMD may wish to investigate. In spite of our initial plans to match pre- and post-test data by computer, we ended up doing it by hand. The same individual who performed this task also pulled the pre-test data of non-positive terminations. He noticed that the non-positive group seemed to include a disproportionate number of individuals with unusual social security numbers, including many with first digits other than "3". We since learned that the first three digits of social security numbers designate the location where they were issued and that the first digit of "3" indicates that the social security card was issued in Indiana, Ohio, Michigan, Illinois, or Wisconsin. This suggests that non-positive terminations may be more transit than most SPEDY participants.

NED'S MISCELLANEOUS IMPRESSIONS

The purposes of the survey were to describe SPEDY programs and to assess their effects on measured career education outcomes. However, in our conversations with IOMD and 105 ODC staff, topics not directly related to these purposes came up often. At IOMD request, NED prepared this section to relay our impressions of some of the problems SPEDY faces and issues on which various people involved with SPEDY seem to disagree.

NED recommends that IOMD provide more opportunities for the thirteen ODCs to discuss programmatic matters. We understand that whereas ODC representatives meet fairly often, bureaucratic matters such as management information systems, new regulations, and budgetary problems tend to fill the agendas of these meetings. We therefore recommend a series of sessions devoted exclusively to topics such as those presented below.

It should take at least several days for the ODCs to share with one another their knowledge, experiences, and opinions on these topics. After that, the group may identify topics they feel a need to learn more about and seek training from outside. Initially, though, we feel that ODC staff "training" one another would be more fruitful, not only because the collective knowledge of the group is impressive, but also because ODC staff are more aware than "outsiders" of the potential of and constraints on SPEDY programs.

Topics for Discussion: SPEDY Philosophy and Related

We were struck by the variety of views of the purpose of SPEDY and the characteristics and needs of SPEDY participants. Some of this is evident in the different priorities placed on the nine outcomes addressed in this survey. NED does *not* recommend that SPEDY programs' educational/training components be standardized by requiring each ODC to follow the same model. Nor do we consider it necessary for all of the programs to have the same objectives for their youth. We were, however, disturbed to find a few programs where individual staff members were unclear about the program's objectives or where each staff member reported the program's objectives as remarkably different. Also, we see it as desirable to assure that variations among different programs' objectives and strategies stem neither from unfounded beliefs nor from a lack of awareness of alternatives to those a given program chooses.

Below are some paraphrased comments made by the ODC staff members we met. We believe that study and debate of these issues would serve to clarify the thinking of each person involved in serving youth through SPEDY and perhaps lead to greater consensus among these individuals.

1. Our clients need a structured setting for learning.
2. If SPEDY smells the least bit like school, we'll turn the kids off the first day.
3. All of these youth have completely different needs; that's why the whole program has to be individualized.
4. Our clients have enough common needs so that we can do most things as group activities.
5. If we're going to make a difference in our clients' lives, we have to get to know them as individuals and vice versa.
6. Discipline problems have to be handled case by case; a lot of factors have to be considered.
7. Youth have to know exactly what the rules and penalties are and that they'll be enforced.
8. Kids have to learn what it's like to work, so we make the program as much like a "real" job as we can--that goes for discipline, hours, time clocks, everything.
9. Most of our clients aren't ready for the harsh realities of unsubsidized employment; we have to make alot of allowances that most employers would not make.
10. The purpose of SPEDY is to give participants something worthwhile to do for the summer.
11. The purpose of SPEDY is to get some work done in the community we couldn't afford otherwise.
12. The purpose of SPEDY is to put money in the pockets of youth who need it.
13. The purpose of SPEDY is to educate youth.
14. We have to teach youth to be independent--to start taking responsibility for their lives regardless of the problems they've had until now.
15. These youth have gotten a rotten deal from society. SPEDY is a small step toward making it up to them, but we owe them alot more.

16. We put the younger and older participants in separate groups because many of our older youth are awful role models for the younger kids.

17. We put the younger and older participants in separate groups because the older youth are so much more mature that the younger ones can't keep up with them or become too shy to participate in group activities.

18. Most of our participants are illiterate.

19. A few of our kids have reading problems, but you'll find a few in any school. They're no worse than more advantaged youngsters.

20. These are pretty tough kids; alot of delinquency.

21. I don't think economically disadvantaged youth are any more delinquent than most; they're just less likely to get away with it.

22. Most of their parents are undisciplined welfare mongers who don't give a damn about their kids; anything we do for our clients in SPEDY gets undone when they go home.

23. Most of their parents are hard workers; they just don't get paid much. Being poor doesn't mean you don't love your children. We'd like to be able to work more with parents; when we do, we almost always find them eager to do anything they can to help their kids.

24. We can't get more than a handful of work sites that offer meaningful work; how can we expect kids to learn anything from work experience when all they do is clean up parks or paint schools?

25. Most "teenage" jobs are menial, regardless of the socioeconomic class of the kids who have them. We all had jobs like that; I know I learned alot from mine.

26. Most of these youth are destined for unskilled factory or maintenance jobs, so we try to teach them to do this kind of work well.

27. We try to open our clients' minds to all the exciting career opportunities out there; just because their parents are on the assembly line doesn't mean they can't do better themselves.

28. We worry about the possibility of raising some of our clients' aspirations beyond their reach. What do you say to a "D" student who wants to be a physician?

29. Without intervention from SPEDY or something similar, most of these kids would end up unemployed or in minimum-wage jobs. We may not make doctors and lawyers out of them, but we can at least encourage them to get some vocational training.

30. We tell our clients about all kinds of jobs and hope that we instill enough career planning skills for them to make good decisions on their own.

31. It's useless to talk about career opportunities with our kids; they're not ready to think about their futures yet.

32. Most of our participants have already decided on a career.

33. It's especially hard to talk to girls about careers; most of them have decided to get married and have children; alot of them already have.

34. I think breaking down sex stereotypes is even more important for our young women than for more advantaged girls. For one thing, they're more likely to need a paycheck; their parents and husbands don't make enough to support them. Most of them lack the education and middle-class social skills needed for most "ladies'" jobs. There are alot of "men's" jobs that require little or no prior training and pay even more than they could make as a secretary or teacher, and certainly more than they'd make as a cleaning woman.

35. These kids come from a sexist culture; it's none of our business to tell them their parents and churches are wrong about the proper roles of men and women.

36. We avoid teaching the younger participants job-seeking skills. That just encourages them to get a job and drop out of school.

37. We teach job-seeking skills even to 14 year-olds. Most of them need part-time work to stay in school.

Topics for Discussion: SPEDY Management

Below are several SPEDY management problems that seem to be common to many ODCs. We offer no solutions, but are convinced that the expertise needed to arrive at solutions exists within the balance-of-state's pool of ODC staff members. Indeed, each of these problems has been at least partially solved by at least one ODC.

1. High SPEDY staff turnover from summer to summer impedes annual improvement of the programs. How can ODCs attract and select qualified staff who are likely to return in future summers?

2. Key SPEDY planning activities take place during the winter. It seems best for the winter-time planners to be deeply involved in summer-time management. Three ways that this is done are to 1) hire summer directors who coordinate with the winter planners; 2) assign SPEDY directorships to year-round Operations Managers and; 3) hire a year-round youth coordinator who directs both SPEDY and YETP programs. Which is best?

3. How much autonomy is needed by each county within an ODC area in designing and conducting SPEDY programs? How can the ODC maintain good coordination and avoid duplication of efforts among counties while allowing each the level of independence it needs?

4. When can the career education staff get together for training, planning, and program evaluation?

5. Can the more mature SPEDY clients be used effectively as instructional aides and work site supervisors for other clients? If so, how should they be selected, trained, and supervised?

6. How can ODCs make maximum use of the educational materials and supplies purchased for SPEDY and the other programs they operate?

7. How can SPEDY provide sufficient transportation services in rural areas where some youth are unable to participate without it and still avoid providing this costly service to youth who could handle their own transportation and who may even benefit from taking this responsibility?

8. How can the work experience and career education components be coordinated so that each capitalizes on the other?

9. How much of what kind of training and support do work site supervisors need in order to maximize the benefits of the work to youth? How can it be provided? Should SPEDY either refuse to involve or terminate the participation of poorly-managed work sites? If so, what circumstances should warrant such action?

10. Many work sites request or require that youth assigned to them be of a given sex. How can SPEDY eliminate sex discrimination in site placements without antagonizing the work sites to the point where they become uncooperative on other issues or withdraw their participation?

THE FEASIBILITY OF EVALUATION

As mentioned earlier, this survey was conducted to study the feasibility of evaluating SPEDY programs as well as to learn about the programs' nature and effects. Our conclusion is that evaluating programs' short-term impact on career education learning is no less feasible for SPEDY than for school programs (which are evaluated often) and that identifying and describing career education activities is generally less complex for SPEDY than for school-based programs.

The study demonstrated the feasibility of constructing apparently valid forced-choice tests of nine career education outcomes which are reasonably reliable for the balance-of-state SPEDY population. Although it places an additional burden on SPEDY staff, testing can be scheduled, and without the constraints of the typical school schedule, nearly all participants can be provided enough time to finish it. Most youth can be induced to take the test seriously and most can read it. Testing need not breed demonstrative resentment in youth; some areas reported that it implanted important questions in participants' minds and generated interesting discussions. Although test scoring was delayed by data resolution procedures whose need was not anticipated and by hold-ups in the optical scanning process, it was accomplished within a month of test administration in most cases. Like all evaluations of career education's effects, this study was plagued by the limitations of the state-of-the-art of measurement, but these problems do not seem to have been any more serious than usual.

In spite of the problems we encountered in preparing program descriptions, such as dealing with highly heterogeneous programs, we found the task of arriving at reasonable estimates of the nature and extent of participants' experiences more manageable for SPEDY programs than for typical secondary school career education programs. One reason is that SPEDY career education training activities are generally more distinguishable from other program components because the method favored by many schools of infusing career education into academic instruction is less applicable to and infrequently used in SPEDY. Another reason is that SPEDY participants, unlike high school students, do not encounter six or eight different teachers each day, each with his or her own priorities and techniques for career education.

In general, NED considers the survey a successful demonstration of the feasibility of evaluating SPEDY's progress toward career education goals. We attribute this success largely to the contributions of ODC/SPEDY staffs; without their efforts in administering the tests and their willingness to share program information with the NED staff, our work would have been to no avail.

Should IOMD consider a similar pursuit in the future, NED would recommend the following modifications of the methods and focus of the present study:

1. Plan the evaluation earlier. The external evaluator could make good use of more lead time, but more importantly, the evaluation should be planned prior to the planning of SPEDY orientation to avoid the need to reschedule to accommodate pre-testing.
2. Revise the NICE scales. NED has data indicating which items should be eliminated to make the measures shorter and more reliable at the same time.
3. Use only one test form rather than two. Separating the scales onto two test forms caused logistical problems in test administration and difficulties in deciphering which form each youth took. For most programs it also resulted in too few youth for the most desirable analysis of program effects.
4. Eliminate some test scales. We would suggest eliminating the Job-Specific Occupational Information scale because this body of knowledge is too broad to measure adequately in a survey test. Other eliminations should be on the basis of the ODCs' clarified and revised objectives for SPEDY. Four to six scales would constitute a test of reasonable length for administration to all participants.
5. Train test administrators in person. Written instructions were not always adequate; measurement specialists should either administer the tests or train the SPEDY staff to do so. We lean toward the latter because 1) it would be less expensive, and 2) SPEDY staff are more experienced in dealing with their clientele and youth would probably feel more comfortable with them, especially at the end of the summer.
6. Institute better procedures for reviewing answer sheets and filling in missing information at the county or area level. For example, many youth were excluded from analyses due to missing identification numbers which an external evaluator cannot access.
7. Assign the evaluation staff to areas according to the number of programs they operate. Although the thirteen areas were divided equally among the NED staff, the number of programs for which they were responsible varied from three to thirteen.

8. Add an evaluation component whereby SPEDY staff systematically evaluate all program activities. Objective test results provide some insight into the effects of the total program, but they cannot replace staff observations of which approaches work and which do not. These observations should be documented to facilitate annual program improvement, particularly with high staff turnover from summer to summer.
9. Survey participants' opinions of their SPEDY programs. Studying the correlations between their opinions and their test scores may also be interesting.
10. Survey work site supervisors' opinions of the programs and their observations of youth's work habits.
11. Follow up participants several months after the program ends to identify longer-term, behavioral effects of SPEDY participation. This would require extensive effort at the area and county levels.

The ultimate test of this study's success will be the utility of the findings in planning future programs. NED hopes that the ODC and IOMD staff will evaluate the survey and ammend our suggestions for making future studies not only more technically sound and logistically smooth but also more beneficial to program designers and instructors and in turn to the youth they serve.

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Area A

Sponsoring Agency

Porter County Board of Education

Contact Person

William Wild
P.O. Box 169
17 N. Washington St.
Valparaiso, IN 46383
(219) 464-4861

ODC Director

William Wild

Counties: 6

Jasper
Newton
Porter
Pulaski
Starke
White

SPEDY Staff (selected list)

Director: ODC Operations Manager, year-round.

Career education staff: One Career Exploration Coordinator was responsible for visiting work sites presenting career education materials in small group sessions and counseling youth. This person's background is in counseling and includes past experience with SPEDY. One Career Counselor is responsible for coordination of counseling activities, individual counseling, and organizing field trips. This person's background is counseling and includes previous experience with SPEDY. Twelve County Coordinators (7 assigned to Porter County and 5 to each remaining County) counsel participants and set up individual field trips for those participants who indicate an occupational interest. Approximately half of these positions are held by teachers or counselors and again about half have had previous SPEDY experience.

Participants

Youth are served on a first-come first-served basis. The program was able to place all eligible applicants.

Total number of participants throughout summer: 310
White: 96% Black: 2% Other: 2%
14-15: 51% 16-17: 36% 18-19: 11% 20-21: 2%

SPEDY Program Overview

Duration: 10 weeks. Average of 30 hours per week, and a total of 300 hours. Each youth participated in an average of 21 hours of career education activities.

Career Education Component

The career education component is individualized and for the most part completed at the work site. Participants signed up for career related field trips. Also county coordinators organized individual field trips for those students who indicated a specific occupational interest. Youth received individual counseling and participated in small group seminars, focusing on job-seeking skills.

Size of instructional groups: field trips: 1-15. Seminars: 15.

All Other instruction was completed individually.

Emphasis on survey outcomes:

High emphasis was placed on:
- -Work-Related Attitudes. Individual counseling as well as the seminars focusing on this.

Medium emphasis:
- -Self Esteem. Through individual counseling.
- -Job-Seeking Skills. Seminars focused on this, also field trips.
- -Career Planning. Through individual counseling and individual field trips.

Low emphasis:
- -Attitudes toward Learning. Incidental.
- -Sense of Control. Incidental.
- -General Occupational Information. Incidental.
- -Sex Equity. Incidental.

Estimated time spent by each youth in activity types:
Field trips: 6 hours
Demonstration/lecture: 2 hours
Individual field trip: 3 hours
Individual counseling: 10 hours

Work Experience Component

Method of site assignments: Students were placed on sites which matched their occupational interests as indicated on an interest inventory administered to each student during intake. This method could not be followed with all students.

Number of youth per work site: 1-40, average approximately 4

SPEDY staff communications with work site personnel: Counselors met with students at work sites which allowed for frequent communications with work-site supervisors. Work-site supervisors received individual orientation.

Test Results

Area A

Number of pre-tests scored Form A: 190 Form B: 190
Number of post-tests scored Form A: 116 Form B: 123

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	27	14	41	34	11	45
Females	28	12	40	29	10	39
Total	55	26	82	63	21	85

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Work-Related Attit.	82	52.56 (7.66)	51.71 (9.50)	- .85	-.11		
Medium Priority							
Job-Seeking Skills	81	13.56 (3.89)	13.63 (4.33)	.07	.00		
Job-Spec. Occ. Info.	80	21.73 (4.26)	21.96 (4.54)	.24	.03		
Self Esteem	85	43.19 (6.56)	43.15 (8.00)	- .04	.00		
Career Planning	85	63.52 (11.27)	61.95 (13.04)	-1.56	-.14	$p < .10$	1
Low Priority							
Sense of Control	82	17.39 (4.28)	16.91 (4.36)	- .48	-.12		
Attit. tow. Learning	84	35.57 (6.21)	33.74 (7.73)	-1.83	-.26	$p < .05$	
Gen. Occ. Info.	84	13.08 (3.72)	12.71 (4.40)	- .37	-.14		
Sex Equity	85	24.01 (7.54)	24.61 (8.02)	.60	.08		

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[1] Decrease in males only (.28 σ's); females gained .02 σ's (not significant).

AREA B

Sponsoring Agency

Indiana Vocational Technical College

Contact Person

Marianne S. Carr
Operations Manager
Occupational Development Center
7th and Pontiac Streets
Rochester, IN 46975
(219) 223-4371

ODC Director

Julian Griggs

Counties: 6

Cass
Fulton
Kosciusko
Marshall
Miami
Wabash

SPEDY Staff (selected list)

Director: ODC operations manager, year-round.

Career education staff: Two career education/work experience coordinators, each responsible for three counties and both housed at the ODC. Twenty counselors, three or four in each county. These twenty-two individuals include 18 elementary and secondary teachers, an elementary principal, a secondary guidance counselor, a college admissions counselor, and a counselor for emotionally-disturbed children. Thirteen of them worked with the program last year.

Work experience staff: Same as career education staff.

Participants

Criteria for selecting among income-eligible applicants: The program was able to place all eligible applicants, with the exception of a few cases where transportation could not be arranged.

Total number of participants throughout summer: 630
White: 93% Black: 4% Other: 3%
14-15: 50% 16-17: 33% 18-19: 13% 20-21: 5%

SPEDY Program Overview/Career Education Component

The career education and work experience components were closely interwoven. The program began with three afternoons of training in each county which included orientation, pre-testing, and training in job-seeking and job-coping skills. Additional activities varied from county to county and included work on leadership skills, career planning, and personal economics. Clients were then interviewed by work site supervisors for their jobs; if not accepted by their first interviewer, they were sent to another. After initial training the program became individualized.

Participants spent the next nine weeks at their work sites full-time. Each counselor was assigned to six to ten work sites and an average of about 25 youth. They visited each site two to five times per week to counsel youth individually and to meet with work site supervisors. The counseling focused primarily on job adjustment and to a lesser degree on personal and family problems. Longer-term career counseling was also provided to participants who were receptive to such assistance.

Since work site supervisors are seen as a major determinant of program success, much of the counselors' time on-site was spent in providing them support. Counselors checked on participants' progress, suggested ways of making the work a valuable learning experience for the youth, and helped supervisors solve any problems which had arisen.

In order to develop rapport with the youth and to provide models of good work habits, counselors often participated with youth in the work activities at sites.

At the program's conclusion youth participated in another one to three days of training designed around their individual needs. These activities included assistance in finding a permanent job, field trips to industries and to IVY Tech, presentations by military recruiters, and job shadowing. Some of the younger participants were taken to a bank to open savings and checking accounts. In one county, youth came to the county office to discuss their work site supervisors' evaluations of their performance before the counselor prepared their SPEDY evaluation, which remains on file at the ODC for job reference purposes.

The program design is new this year. In the past, youth were removed from their work sites weekly for career education training. Participants' low interest in this training and work site supervisors' annoyance over their absence led to the present program, which is designed to emphasize "learning how to work" by placing the main emphasis on providing a realistic yet supportive work experience.

Program duration: 10 weeks, average of 32 hours/week, maximum total of 360 hours. Some worked 40-hour weeks. Included an average of about 24 hours of career education training at the beginning and end plus about 1 hour per week in individual counseling, for a total of about 32 hours of "career education".

Size of instructional groups: During training, average of 10.

Emphasis on survey outcomes:

High emphasis was placed on:

- -Work-related attitudes/job-coping skills. Top priority. Focus of individual counseling and discussed in training. Also emphasized by work site supervisors.
- -Job-seeking skills. In first training session. Simulated job interviews with counselors role-playing different interviewers' styles and personalities. Instruction and practice in deciphering want ads and in preparing applications, letters, and resumes. Used booklet, "About Getting a Job." Youth interviewed competitively for SPEDY jobs.
- -Self esteem. Through individual counseling and work site supervisors.
- -Attitudes toward learning. Especially encouragement to remain in school. Through individual counseling.

Medium emphasis:

- -Sense of control. Degree of emphasis varies among counties from low to high. Individual counseling and anticipated side effect of other experiences.
- -Sex equity. Site placements made without regard to sex. Work site supervisors are becoming less sex-biased as evidenced by fewer specifications of sex preferences than in past years.

Low emphasis:

- -Career planning. Little emphasis for the group as a whole, but emphasized with older participants.
- -Job-specific occupational information. Some with older participants. Job shadowing, field trips.
- -General occupational information.

Other outcomes emphasized:

- -Personal economics

Estimated time spent by each youth in activity types:

Individual counseling: 8 hours
Demonstration/lecture: 3 hours (about one-third of career education component of pre-work training)
Group discussion: 3 hours (about one-third of pre-training)
Independent study: 3 hours (pre-training work on job applications, etc.)
Post-work training was an average of about 15 hours consisting of various combinations of field trips, mini-field trips, guest speakers and individual counseling.

Work Experience Component

Method of site assignments: The first placements were cases where employers requested SPEDY workers they had had in the past and the youth wished to return. The remaining youth interviewed competitively for the remaining positionc and final placements were based on participants' interests to the extent possible. Transportation was a limiting factor at all three stages.

Number of youth per work site: 1-20, average 3

SPEDY staff communications with work site personnel: Counselors visited each site two to five times per week. Orientation was handled individually. Timecards included a checklist for supervisors to indicate each youth's progress on 11 dimensions of job performance, attitudes, and appearance.

Special projects: Park development project in a low-income neighborhood involving 10 youth. Vegetable garden developed and maintained by 10 youth for a group home for boys.

Special positions: At twelve sites where there was no work site supervisor, an older SPEDY participant served as group leader.

Other SPEDY Activities

Twenty-nine youth in two counties participated in a tutorial reading program for two hours twice per week. The program is staffed by two college students.

Seventy-five youth participated in Project AWARE at the federal penitentiary in Terre Haute.

Test Results
Area B

Number of pre-tests scored	Form A: 386	Form B: 403
Number of post-tests scored	Form A: 224	Form B: 223

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	67	18	85	70	25	95
Females	52	23	75	54	19	73
Total	119	41	160	124	44	168

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Work-Related Attit.	159	53.73 (5.78)	51.40 (9.19)	-2.33	-.31	$p < .001$	
Job-Seeking Skills	158	13.57 (3.47)	13.61 (4.53)	.04	.01		1
Self Esteem	167	42.38 (7.58)	42.65 (7.86)	.27	.04		
Attit. tow. Learning	168	33.04 (8.08)	32.91 (8.08)	- .13	-.02		2
Medium Priority							
Sense of Control	159	16.97 (4.13)	17.20 (4.51)	.23	.05		3
Sex Equity	168	22.50 (7.45)	23.48 (7.99)	.98	.13	$p < .10$	
Low Priority							
Job-Spec. Occ. Info.	158	21.36 (4.58)	21.17 (4.75)	- .19	-.04		
Career Planning	168	59.85 (12.86)	60.49 (13.62)	.64	.06		4
Gen. Occ. Info.	160	11.93 (4.25)	12.46 (4.49)	.53	.15	$p < .10$	

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[1] Females gained significantly (.19 σ's), while males decreased .15 σ's (not significant).

[2] Males declined significantly (.28); females improved significantly (.33).

[3] Females improved significantly (.14).

[4] Females improved significantly (.37).

AREA C

Sponsoring Agency

Joint Organization for Broader Services, Inc.

ODC Director

Barbara Street

Contact Person

Barbara Street
128 E. Market St.
P.O. Box 377
Bluffton, IN 46714
(219) 824-1163

Counties: 5

Huntington
Jay
Randolph
Steuben
Wells

SPEDY Staff (selected list)

Director: Summer position. New this year.

Career education staff: Two youth coordinators, each responsible for two or three counties, who are on the year-round ODC staff and are also involved in YETP and Title I programs. Two trainers, one of them the lead trainer, per county. Each county also had one to three aides who are older and specially-qualified SPEDY-eligible youth. Of the ten trainers, four are elementary or secondary teachers, three are Head Start teachers, one is a college professor, one has a social services background, and one has a technical background. None of the trainers has worked with SPEDY before.

Work Experience staff: None.

Participants

Criteria for selecting among income-eligible applicants: Priority ratings were computed with Area C's "SPEDY Priority Ranking System," which is based on age, education, dependents, and special needs characteristics. High-priority clients were enrolled first; others were enrolled to replace early terminations. The initial waiting list was 23% of the enrollment.

Total number of participants throughout summer: 253

White:	93%	Black:	1%	Other:	6%		
14-15:	54%	16-17:	35%	18-19:	7%	20-21:	4%

SPEDY Program Overview/Career Education Component

The program involved no work experience component; the entire program was conducted in a classroom-like setting in each county. At the beginning of the program youth chose five of the following ten career areas to explore:

Group 1	Group 2
Construction	Business Sciences
Horticulture	Health
Power Technology	Design Occupations
Printing Careers	Child Care and Education
Manufacturing	Food Service

Clients were required to choose at least two career areas from each list so that girls would investigate traditionally "male" occupations and vice versa.

Each career area exploration consisted of a two-week module providing youth experiences in performing actual tasks of jobs in the career area. In the construction module, for example, youth built a utility shed; in the horticulture module they made corsages and terrariums; in the manufacturing module they formed mock corporations and produced articles in assembly-line fashion; the child care and education module included several days of running a nursery; the business module concluded with three days of an office lab experience; and so on. A substantial amount of technical instruction preceded each job task sampling activity--for example, the health module included first aid and CPR training--but the program's central purpose is not technical skills development.

The program is founded on the premise that a person's abilities, likes, and dislikes are the basis of career decisions and that many youth lack the experiences needed to discover what they can and cannot do, what they do and do not enjoy. Therefore, the program is designed to provide them enough exposure to various occupational areas to help them decide whether to investigate those areas further. Information about career opportunities is infused into the modules.

The last one or two days of each two-week block and the eleventh week of the program were spent on other career education activities. The program was designed to simulate the employment setting as closely as possible in terms of behavior codes, disciplinary procedures, and the use of time clocks.

Two years ago Area C's program was a combination of work experience and career education training. The present model was implemented last year with five modules taught by trainers who rotated among the counties. Those modules were revised and another five were developed since last summer and in the spring each trainer was trained in five of the modules so that participants and trainers could remain in the same county throughout the summer; only the equipment and materials were rotated this year.

Program duration: 11 weeks, 30 hours per week, total of 330 hours. All career education.

Size of instructional groups: 9-28, average 20.

Emphasis on survey outcomes:

High emphasis was placed on:

- -Job-specific occupational information. Job task sampling, use of Occupational Outlook Handbook, American Trade Schools Directory, A/V presentations, field trips.
- -Job-seeking skills. Practice interviews, job applications, resumes, letters, deciphering want ads from local newspapers.
- -Self esteem. Through opportunities to discover compentencies through job task sampling, pride in finished products of job task sampling activities, values clarification activities.
- -Work-related attitudes/job-coping skills. Employability attitudes are assessed with the Comprehensive Occupational Assessment and Training System, a test presented in an audio-visual format. Attitudinal and skills development are through job task sampling activities (including group activities) and the program's measures to simulate employment settings.
- -Sex equity. Through requirement to investigate non-traditional careers.

Medium emphasis:

- -Career planning. Emphasis on recognition that a variety of career options are available, and of the value of career planning. Also self appraisal through job task sampling and values clarification activities. Other career planning components are not stressed.
- -Attitudes toward learning. Anticipated side-effect of positive learning experiences.

Low emphasis:

- -General occupational information. Information about fringe benefits, income taxes.
- -Sense of control. Possible side effect of values clarification activities.

Estimated time spent by each youth in activity types:

Job task sampling: 142 hours (43%)
Demonstration/lecture: 70 hours (21%)
Independent study: 48 hours (15%)
Group discusion: 25 hours (8%)
Field trips: 24 hours (7%), average 6 trips
Group A/V presentations: 12 hours (4%)
Guest speakers: 9 hours (3%), average 5 speakers

Test Results

Area C

Number of pre-tests scored	Form A: 80	Form B: 82
Number of post-tests scored	Form A: 61	Form B: 63

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	13	3	16	14	1	15
Females	15	4	19	11	0	11
Total	28	7	35	25	1	26

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Work-Related Attit.	35	50.89 (8.22)	51.17 (9.62)	.29	.04		
Job-Seeking Skills	35	12.43 (4.21)	12.69 (3.86)	.26	.07		
Job-Spec. Occ. Info.	35	21.31 (4.60)	20.83 (4.79)	- .49	-.11		
Self Esteem	26	42.04 (5.13)	41.54 (7.29)	- .50	-.07		
Sex Equity	25	23.20 (7.17)	23.92 (7.16)	.72	.09		
Medium Priority							
Career Planning	25	61.44 (10.09)	58.52 (12.10)	-2.92	-.26		
Attit. tow. Learning	25	33.68 (6.51)	30.28 (7.99)	-3.40	-.47	$p < .05$	
Low Priority							
Sense of Control	35	16.69 (4.46)	16.89 (4.30)	.20	.05		
Gen. Occ. Info.	24	12.38 (3.36)	10.83 (4.00)	-1.54	-.49	$p < .10$	

AREA D

Sponsoring Agency

Kokomo OIC, Inc.

ODC Director

Allan Galloway

Contact Person

Allan Galloway
Occupational Development
Center
400 N. Main St.
Kokomo, IN 46901
(317) 452-0021

Counties: 2

Howard
Grant

SPEDY Staff (selected list)

Director: Summer position. New this year.

Career education staff: Lead instructor develops curriculum, coordinates program, substitute teacher. Two career education teachers per county. All career education staff have elementary or secondary teaching experience; one has worked with SPEDY before, in 1975.

Work experience staff: Each county has a team leader, two specialists/van drivers, and two intake specialists. Each of the four specialists in each county is responsible for liaison with 15-20 work sites.

Participants

Criteria for selecting among income-eligible applicants: Initial waiting list of about 35% of enrollment. Selection is on the basis of work site availability. Since many employers require older youth and some request boys, most on the waiting list are 14 or 15 and the majority are girls.

Total number of participants throughout summer: 609
White: 48% Black: 51% Other: 2%
14-15: 37% 16-17: 35% 18-19: 20% 20-21: 8%

SPEDY Program Overview

Youth spent all of the first week at their work sites. During each of the last nine weeks they came to the county SPEDY office for one-half day of career education class.

Duration: Maximum of 300 hours. 30 hours per week for 10 weeks for most; some work fewer 40-hour weeks. Includes 27 hours of career education class--three hours per week for 9 weeks.

Career Education Component

The career education component was conducted in a classroom setting with all youth assigned to a given work site participating in career education at the same time. The two Grant County teachers team taught; in Howard County youth were assigned to one of the two teachers according to their work sites.

Teachers developed their lesson plans around the same curriculum outline, but each used different activities with somewhat different emphases. Discussions and other activities were also geared to the interests and needs of the eight different groups each teacher saw each week. Mondays were set aside for planning, with no classes conducted that day.

Size of instructional groups: 9-18, average 12 in Howard; 12-50, average 24 in Grant.

Emphasis on survey outcomes:

High emphasis was placed on:
- Job-specific occupational information. Greatest emphasis. Guest speakers, films, filmstrips. Walking field trips in Grant County.
- Self esteem. Class discussions. Also films and speakers demonstrating how people have overcome obstacles such as physical handicaps. Drug education also emphasized this.
- Attitudes toward learning. Speakers often emphasized the importance of education. Class discussions, including discussions of the educational requirements of various jobs.
- Sex equity. Class discussions.

Medium emphasis:
- Work-related attitudes/job-coping skills. Discussions of problems and interesting situations encountered at work sites. Grooming, personal hygiene.
- Career planning. Values clarification, goal-setting, discussions of films presenting career-planning problems and of youth's career plans, emphasis on the value of career planning.
- Job-seeking skills. Deciphering want ads, preparing applications and resumes, tape-recorded practice interviews.
- Sense of control. Activities similar to those noted for self esteem.

Low emphasis:
- General occupational information.

Other outcomes emphasized:
- Personal economics. Board game developed by one of the teachers.
- Drug education.

Estimated time spent by each youth in activity types:
Group A/V activities: 7 hours
Group discussion: 5 hours
Demonstration/lecture: 5 hours
Guest speakers: 4 hours
Independent study: 3 hours
Field trips: In Grant County only
Individual counseling: Available from specialists by request from youth or SPEDY staff. Involved about half of the youth. Mostly concerning personal and work adjustment problems.

Work Experience Component

Method of site assignments: By youth's career interests and special skills as determined during intake interviews. Participants interviewed at sites where the supervisor requested it.

Number of youth per work site: 1-25, average 5.

SPEDY staff communications with work site personnel. Half-day orientation before the program began. Each site is visited once per week. Additional phone and personal contacts as needed.

Test Results

Area D

Number of pre-tests scored	Form A: 153	Form B: 153
Number of post-tests scored	Form A: 90	Form B: 94

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

Form A

Sex/Age	14-16	17-21	Tot
Males	16	9	25
Females	12	13	25
Total	28	22	50

Form B

Sex/Age	14-16	17-21	Tot
Males	18	8	26
Females	14	12	26
Total	32	20	52

Priority of outcome and scale names	N	Means and (Std. Dev.)		Mean Gain		Difference Sig. ?	Footnotes
		Pre	Post	Raw	in σ's		
High Priority Outcomes							
Job-Spec. Occ. Info.	50	20.02 (4.26)	19.56 (6.34)	- .46	-.10		
Self-Esteem	51	44.51 (6.79)	45.80 (7.46)	1.29	.17		1
Attit. tow. Learning	52	34.96 (5.94)	34.15 (6.92)	- .81	-.11		
Sex Equity	52	21.69 (8.47)	23.19 (7.45)	1.50	.20	$p < .05$	
Medium Priority							
Work-Related Attit.	50	50.26 (6.48)	47.28 (13.03)	-2.98	-.39		
Sense of Control	50	14.80 (3.55)	15.12 (4.93)	.32	.08		
Job-Seeking Skills	50	12.84 (3.63)	12.60 (4.38)	- .24	-.07		
Career Planning	52	62.96 (8.61)	65.08 (10.01)	2.12	.20	$p < .10$	2
Low Priority							
Gen. Occ. Info.	50	12.02 (3.07)	11.94 (3.73)	- .08	-.04		

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[1] Females improved significantly (.26 σ's).

[2] Females and 17-21 year-olds showed the largest improvement (both .31 σ's); males' improvement was not significant, nor was that of the 14-16 year-old group.

Area E

Sponsoring Agency

Community Action Program of
Fountain, Warren, Vermillion
Counties, Inc.

ODC Director

Don Hallett

Contact Person

Ann Knight
Occupational Development Center
P.O. Box 126, U.S. 136 West
Covington, IN 47932
(317) 793-4881

Counties: 6

Benton
Fountain
Montgomery
Parke
Vermillion
Warren

SPEDY Staff (selected list)

Director: Year around responsibility of Field Operations Supervisor new this year.

Career education staff: One career counselor, who serves all counties, is responsible for conducting a two-day workshop for all youth. County coordinators conduct a one-day career education session. The career counselor is a guidance counselor during the school year and has had experience with the SPEDY program in previous years.

Work experience staff: seven county coordinators are responsible for conducting a two-day orientation session within their assigned county (one day of which focuses on career education), setting up job sites, visiting job sites regularly, assisting the career counselor during the scheduled two-day career education workshop in their county, and handling the payroll. These coordinators are college students and half of them have had previous experience working with SPEDY.

Participants

Were as follows, in descending order of importance: Criteria for selection among income-eligible applicants. First priority is given to offenders and second to applicants from families with the lowest income. Also, participation was limited to one youth per family. The family member chosen depended upon work site availability and desired age. The waiting list was approximately 16% of the enrollment.

Total number of participants throughout summer: 237
White: 98% Black: 0% Other: 2%
14-15: 40% 16-17: 44% 18-19: 13% 20-21: 3%

SPEDY Program Overview

Program duration: 9 weeks, 40 hours per week, total of 360 hours. Eighteen hours of career education

Career Education Component

A total of eighteen hours is devoted to career education during an orientation session and during a two-day workshop. The orientation session, conducted by the county coordinators at the beginning of the program, is presented in each county. The instructional size of the groups ranged from 14-41 with an average size of twenty-four. The two-day workshop (not consecutive days) is conducted by the career counselor. Separate but similar workshops are run for younger (14-16 year olds) and older (17-21 year olds) participants. The instructional size of these sessions ranged from 9-25 with an average of 18.

Emphasis on survey outcomes:

High emphasis was placed on:
- -Career Planning. Administration of interest inventories and lectures focusing on career decision-making.
- -Job-Specific Occupational Information. Resource materials available for participants to research occupations.
- -General Occupational Information. Written materials and lecture.

Medium emphasis:
- -Self Esteem. Provide successful experiences and discuss individual aptitudes.
- -Attitudes toward Learning. An emphasis during lectures on the importance of learning in a non-school setting.
- -Sense of Control. Through lecture continually emphasize how much control they have.
- -Job-Seeking Skills. Through lecture and mock interviews.

Low emphasis:
- -Work-Related Attitudes. Incidental at work site.
- -Sex Equity. Incidental in lecture and discussion.

Estimated time spent by each youth in activity types:
Independent study: 7 hours (39%)
Lecture: 7 hours (39%)
Discussion: 2 hours (11%)
Group A/V activities: 2 hours (11%)

Work Experience Component

Method of site assignments: Participants were assigned to sites based upon the preferences of the work site supervisors, and the distance to the work site. Where possible students were placed in jobs in which they indicated a preference, however, this did not happen with the majority of participants. In most cases students interviewed before actual job placement. The number of participants on a work site ranged from 1-8 and averaged 4.

SPEDY staff coordination with work sites: regular visits.

Special Projects:

In Montgomery County SPEDY participants worked on guard rails along a local highway. Another group of SPEDY participants cleaned a section of Sugar Creek.

Test Results

Area E

Number of pre-tests scored	Form A: 80	Form B: 88
Number of post-tests scored	Form A: 55	Form B: 66

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	15	5	20	12	6	18
Females	13	5	18	14	14	28
Total	28	10	38	26	20	46

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Job-Spec. Occ. Info.	38	20.42 (6.21)	20.53 (6.09)	.11	.02		
Career Planning	46	62.28 (9.58)	64.50 (9.51)	2.22	.21	$p < .05$	
Gen. Occ. Info.	44	12.98 (4.13)	13.05 (4.18)	.07	.01		
Medium Priority							
Sense of Control	38	15.74 (5.37)	18.00 (.87)	2.26	.55		
Job-Seeking Skills	38	12.58 (4.65)	15.18 (8.47)	2.61	.71		1
Self Esteem	46	43.52 (5.92)	42.52 (5.97)	-1.00	-.14		
Attit. tow. Learning	45	35.13 (5.42)	34.93 (6.57)	- .20	-.03		2
Low Priority							
Work-Related Attit.	38	48.47 (15.57)	50.05 (11.94)	1.58	.21		
Sex Equity	46	24.15 (7.49)	24.07 (8.63)	- .09	-.01		

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[1] Although both ages and both sexes showed large mean gains, only females' improvement was statistically significant (.59 σ's).

[2] 14-16 year-olds declined significantly (.32); 17-21 year-olds improved significantly (.35).

AREA F

Sponsoring Agency

Indiana Vocational Technical College

Contact Person

Phil Hoff
Occupational Development Center
P.O. Box 337
116½ W. Main St.
Delphi, IN 46923
(317) 564-4335

ODC Director

Phil Hoff

Counties: 5

Boone
Carroll
Clinton
Hamilton
Tipton

SPEDY Staff (selected list)

Director: ODC operations manager, year-round.

Career education staff: One Career Coordinator and five Career Teachers (one per county). Three of the career education staff members are teachers during the academic year; the other three are college students. One of them had prior experience with SPEDY.

Work experience staff: One County Representative per county.

Participants

Criteria for selecting among income-eligible applicants: Earlier in the program some counties had waiting lists; therefore, the selection criteria used to choose among applicants were: 1. lowest family income and, 2. largest family size.

Total number of participants throughout summer: 276
White: 99% Black: 0% Other: 1%
14-15: 47% 16-17: 35% 18-19: 14% 20-21: 4%

SPEDY Program Overview

The SPEDY program operates for ten weeks with each client participating 30 hours/week. An orientation session is held the first day of the summer program to review the logistics and requirements of participation and to introduce job seeking skills (later discussed). In each county, a two-day career education workshop is offered during July, the remainder of the program is spent in work experience.

The SPEDY program has been operational since 1975. In the past the career education component ranged from 2-6 hours per week in length; however, feedback from the participants indicated that too much time was spent on traditional classroom activities; therefore, the career education component was revised.

Program duration: 10 weeks, 40 hours/week, total 400 hours. Included about 17 hours career education.

Career Education Component

During orientation the county representative and career teacher presented a two hour lecture concerning job-seeking skills with an emphasis on interviewing skills. Size of instructional groups: 20-60, average 40.

Career Education Component (sixteen total hours)

A two-day workshop is presented at three locations in Area F. During intake participants complete a survey which identified job interests and life survival topics which they would be interested in learning more about. From the results of this survey, SPEDY staff members identify in the surrounding communities resource people who would present information during the workshop. Below is a more complete description of the two-day workshop.

Day 1-Morning:

This segment's emphasis deals with life survival skills. Three speakers presented information concerning the below outlined topics.

Topic 1-Mental health: How to handle fears and problems.
Topic 2-Living on your own: An awareness of the problems and responsibilities of living on your own.
Topic 3-Managing Money/Taxes: Information regarding credit and consumer rights.

Day 1-Afternoon:

The afternoon session is organized as a career day with approximately 15 careers being presented by community resource people. Participants are required to listen to at least five of the presentations which are scheduled for twenty minute segments. Each resource person is set up in a designated area in a gymnasium where 60-95 participants freely choose the areas they want to attend. The number of resource people at each workshop varied from 8-22.

Day 2-Morning:

From 65-90 participants were divided into three groups and exposed to the topics below. Three specific topics are presented in this morning session and are listed.

Topic 1-Local Job Opportunities and Requirements: presented by a representative of the local Chamber of Commerce.
Topic 2-Job-seeking skills: presented by the Indiana State Employment Service.
Topic 3-Legal Rights: a film presented entitled, "You and the Law" along with an oral presentation.

Day 2-Afternoon:

This segment is run similar to the Day 1 afternoon session. Twelve representatives from training and education programs are set up in the gymnasium and present their programs to the SPEDY participants in small groups. The number of representatives varied from 12-25 and the total participant group size ranged from 65-90.

Emphasis on survey outcomes.

High emphasis was placed on:
- -Work-Related Attitudes. Guest speakers and contacts with county representative.
- -Job-Specific Occupational Information. Guest speakers.
- -General Occupational Information. Guest speaker and film.

Medium emphasis:
- -Job-Seeking Skills. Lecture.
- -Attitudes toward Learning. Indirectly at job sites.
- -Self Esteem. Contacts with county representatives.

Low emphasis:
- -Career Planning.
- -Sense of Control.
- -Sex Equity.

Other outcomes emphasized:
- -Life Survival Skills: addressed in the survey. Guest speaker and film.

Estimated time spent by each youth in activity types:

Guest speakers: 14 hours
Lecture: 2 hours
Film: 1 hour

Work Experience Component

Job assignment: Student interests as identified on a interest survey form were considered when job assignments were made; however, this system could not be followed in all cases due to transportation and job-site availability. Ninety-five percent of the participants interviewed for the job prior to actual placement.

range: 1-6
average: 1.5

Communications With Work Site Coordinators

The county representatives visit all job sites at least once a week. If for some reason this was not accomplished, the career teacher assigned to that county covered the weekly visit. Discussion during this time centered around special problems encountered during the week. The county representative and work-site coordinator work cooperatively in hiring and firing participants.

Special Projects

Area F worked cooperatively with a local agency dealing with the handicapped in implementing a recycling project. The SPEDY participants were responsible for handing out brochures and picking up paper.

Test Results

Area F

Number of pre-tests scored	Form A: [illegible]1	Form B: 98
Number of post-tests scored	Form A: 59	Form B: 71

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	15	4	19	19	8	27
Females	21	6	27	25	9	34
Total	36	10	46	44	17	61

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Work-Related Attit.	46	51.72 (7.36)	50.22 (9.90)	-1.50	-.20		
Job-Spec. Occ. Info.	43	21.14 (4.63)	20.79 (5.32)	- .35	-.08		
Gen. Occ. Info.	58	11.69 (3.57)	11.86 (3.65)	.17	.14		
Medium Priority							
Job-Seeking Skills	46	12.57 (3.42)	13.61 (3.66)	1.04	.28	$p < .01$	
Self Esteem	61	41.74 (7.29)	41.64 (8.27)	- .10	-.01		
Attit. tow. Learning	61	34.49 (6.91)	33.74 (7.27)	- .75	-.11		
Low Priority							
Sense of Control	46	15.46 (4.18)	15.59 (4.00)	.13	.03		
Career Planning	61	62.70 (9.72)	61.03 (13.11)	-1.67	-.16		
Sex Equity	61	24.43 (7.22)	24.67 (7.53)	.25	.03		

AREA G

Sponsoring Agency

Indiana Vocational Technical College

Contact Person

John Busing
Occupational Development
Center
P.O. Box 645
Greencastle, IN 46135
(317) 653-8471

ODC Director

John Busing

Counties: 5

Clay
Hendricks
Morgan
Owen
Putnam

SPEDY Staff (selected list)

Director: Year-round ODC Operations Manager.

Career education staff: The Career Coordinator developed the curriculum and provided training and technical assistance to the seven career teachers. Career classes were held in three locations with two or three teachers each. All of the career education staff are secondary educators. One teacher has worked with SPEDY before and the Career Coordinator has extensive experience as a career education coordinator for schools.

Work experience staff: A Work Experience Coordinator and five County Representatives.

Participants

Total number of participants throughout summer: 463
White: 98% Black: 2% Other: 1%
14-15: 50% 16-17: 34% 18-19: 13% 20-21: 3%

SPEDY Program Overview

The first day of the program is an orientation day where students learn their responsibilities in the program and are introduced to job-seeking skills (A portion of the later described career education component). During the next six weeks, youth participate for 2 consecutive days and later 5 consecutive days in career education.

Career Education Component

The SPEDY program has been operational since 1975; however, in the past, the emphasis has been placed on work experience with essentially no structured career education.

This year the career education component is conducted in a classroom setting at three different locations in area G. Participants spend a total of 8 days in the classroom. Each of the teachers use different activities, but the purposes of activities do not vary greatly since they were involved in a orientation workshop to review career education program objectives. Below is a brief description of the 8-day program.

Day 1 -Students are exposed to job-seeking skills.

Day 2&3 -Students identify job clusters they are interested in exploring. This is accomplished through self awareness, decision-making, and occupational information activities.

Day 4-8 -Students explore job clusters as identified above and are exposed to life survival skills. There is some variation within Area G regarding how these goals are met. One classroom offers field trips and in some cases job task sampling activities in six job clusters. The youth chooses the cluster which he or she is interested in. Another classroom offers field trips and guest speakers representative of all clusters during the 5-day exploration. The third classroom allows participants to interview a community resource person who represents their individual job interest area.

Program duration: 11 weeks, average of 30 hours/week, total hours 330. Included 40 hours of career education.

Size of instructional groups: 6-35, average 20.

Emphasis on survey outcomes:

High emphasis was placed on:
-Job-Seeking Skills. Field trips, filmstrips, and lecture.
-Career Planning. Discussion, field trips, filmstrips.
-Job-Specific Occupational Information. Field trips, filmstrips, independent study.

Medium emphasis:
-Sense of Control. Discussion and lecture.
-Work-Related Attitudes. Lecture and field trips.
-Self-Esteem. Indirectly.
-Attitudes toward Learning. Field trips and discussion.

Low emphasis:
-Sex Equity. Discussion.

Other outcomes emphasized:
-Life Survival Skills: Addressed in the survey. Lecture, discussion, and field trips.

Estimated time spent by each youth in activity types:
Field trips: 12 hours
Lecture: 10 hours
Group discussion: 8 hours
Guest speakers: 2 hours
Group A/V activities: 8 hours

Work Experience Component

Method of site assignments: Participants are made aware of the different job sites available, and given the opportunity to interview for the jobs of their interest. All youth participated in at least one interview.

Number of youth per work site: 1-10, average: 3½

Special Projects

SPEDY provides a work site supervisor and participants:

1. to run a summer day camp in coordination with a local YMCA
2. to renovate a park
3. to develop a recreational park
4. to provide labor as needed for a city.

Special Positions

Youth could qualify for more pay on the basis of their performance on the job and such cases were designated as group leaders.

SPEDY staff communications with work site supervisor: County Representatives held a spring meeting with work-site supervisors to review the purposes and logistics of the SPEDY program. During the program County Representatives visit the job sites on a need basis.

Test Results

Area G

Number of pre-tests scored Form A: 134 Form B: 148
Number of post-tests scored Form A: 123 Form B: 108

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	39	12	51	25	7	32
Females	28	13	41	29	15	44
Total	67	25	92	54	22	76

Priority of outcome and scale names	N	Means and (Std. Dev.)		Mean Gain		Difference Sig. ?	Footnotes
		Pre	Post	Raw	in σ's		
High Priority Outcomes							
Job-Seeking Skills	91	13.35 (3.76)	13.60 (4.07)	.25	.07		1
Job-Spec. Occ. Info.	91	21.01 (4.15)	21.53 (4.04)	.52	.11		
Career Planning	76	62.63 (9.13)	64.04 (10.17)	1.41	.13	$p < .10$	
Medium Priority							
Work-Related Attit.	91	52.07 (7.74)	52.23 (7.23)	.16	.02		2
Sense of Control	90	16.22 (3.72)	16.49 (4.45)	.27	.06		
Self Esteem	76	42.55 (8.25)	42.84 (8.25)	.29	.04		
Attit. tow. Learning	76	35.24 (4.92)	34.33 (6.26)	- .91	-.13		
Gen. Occ. Info.	75	12.01 (3.53)	12.13 (4.04)	.12	.03		
Low Priority							
Sex Equity	76	22.22 (7.17)	23.39 (7.92)	1.17	.16	$p < .05$	

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[1] Females improved significantly (.23 σ's).

[2] 17-21 year olds and females improved significantly (.23 and .33, respectively).

Area H

Sponsoring Agency

Interlocal Association

Contact Person

John Ray
Occupational Development Center
P.O. Box 591
New Castle, IN 47362
(317) 529-1345

ODC Director

Richard Sewell

Counties: 6

Bartholomew
Brown
Hancock
Henry
Johnson
Shelby

SPEDY Staff (selected list)

Director: New this year. Summer position but will also be involved with YETP throughout the academic year.

Career education staff: Each county has one or two client career specialists. Of the nine client career specialists (CCS), six are educators, one is a school psychologist, one has a clerical background, and one has experience counseling intercity youth. All CCS's are first-year staff.

Work Experience Staff

Each county has a work site coordinator who establishes work sites and performs administrative duties.

Participants

Criteria for selecting among income-eligible applicants: First come-first served, depending on availability of work sites.

Total number of participants throughout summer: 694
White: 93% Black: 5% Other: 2%
14-15: 46% 16-17: 34% 18-19: 14% 20-21: 7%

SPEDY Program Overview

Area H had one program that emphasized different outcomes for younger and older participants and combined a career education and a work experience component. In general, county activities were similar, but the CCS's goals were quite different and the type of counseling varied across counties.

While all six counties provided career education primarily through individual counseling, some counties offered additional types of activities. Two counties supplemented individual counseling activities with one small group session and/or with two large group sessions, dealing with specific and general occupational information and with job seeking skills. The counselor to client ratio ranged from 1:35 to 1:70. Consequently, the amount of individual counseling varied according to that ratio. The type of individual counseling also varied and ranged from being limited to job site problems to extensive career counseling that included life survival skills and personal and family counseling. Examples of extensive client assistance are that one counselor accompanied several clients to local employers to assist in job application procedures for attaining post-SPEDY jobs, one counselor drove two clients to Illinois to assist in their application to and acquisition of financial assistance in a college, and one counselor became deeply involved with clients' personal problems while trying to make them aware of their career options.

Program duration: 10 weeks, 32-40 (average 36) hours per week, 360 hours maximum. Includes an average of 12 hours of "career education."

Career Education Component

This year's career education component varied considerably from last year's. In the past, career education was presented through area vocational schools in classroom settings. Vocational teachers were employed for professional reasons, since no "inhouse" personnel were qualified to present career education concepts. Due to the SPEDY participants' resistance to "summer school" and classroom settings, the program was considered unsuccessful.

For this year's program, staff were hired and trained, and career education activities were individually-oriented and conducted in the field rather than in classrooms. Older youth were treated differently in that the staff concentrated on placing them in some position after SPEDY, such as a vocational or academic school, a job, or another government program. Some of the younger participants were encouraged to apply for YETP. Activities included individual counseling at intake and on work sites and participation in field trips.

Participation in all career education activities was voluntary but 95 percent of the clients participated.

Emphasis on survey outcomes:

High emphasis was placed on:
- Work Related Attitudes. Covered during individual counseling.
- Attitudes toward Learning. Covered in individual counseling.
- Job-Specific Occupational Information. Covered during field trips.

Medium emphasis was placed on the following outcomes in individual counseling:
- Self Esteem.
- Sense of Control.
- General Occupational Information.
- Job-Seeking Skills.
- Career Planning.

Low emphasis:
- Sex Equity: not covered in the program.

Estimated time spent by each youth in activity types:
Field trips: 6 hours
Individual counseling: 6 hours

Work Experience Component

Method of site assignments: by client preference as determined during intake counseling, by work site availability and by work site preference regarding age, sex, personality types and required skills.

Number of youth per site: 1-75, average 4

SPEDY staff communication with work site personnel: In general, county representatives visited work sites at least once per week.

Test Results

Area H

Number of pre-tests scored	Form A: 149	Form B: 117
Number of post-tests scored	Form A: 55	Form B: 53

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	10	6	16	14	5	19
Females	20	4	24	16	4	20
Total	30	10	40	30	9	39

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Work-Related Attit.	40	51.03 (7.81)	49.50 (9.28)	-1.53	-.20		
Job-Spec. Occ. Info.	40	20.70 (4.95)	20.98 (4.82)	.28	.06		1
Attit. tow. Learning	39	34.67 (5.87)	33.31 (7.52)	-1.36	-.19		
Medium Priority							
Sense of Control	40	16.13 (4.29)	15.43 (4.65)	- .70	-.17		
Job-Seeking Skills	40	13.05 (3.73)	12.75 (4.14)	- .30	-.08		
Self Esteem	39	42.15 (6.88)	42.54 (7.01)	.38	.05		
Career Planning	39	62.31 (9.91)	62.62 (10.43)	.31	.03		
Gen. Occ. Info.	39	13.03 (3.94)	13.21 (4.24)	.18	.06		
Low Priority							
Sex Equity	39	24.08 (7.31)	24.21 (8.04)	.13	.02		

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[1] Males' improvement was significant (.31 σ's).

AREA I

Sponsoring Agency

Indiana Vocational Technical College

ODC Director

Andrea Guthrie

Contact Persons

Pam Joyce
Occupational Development Center
Medical Arts Bldg.
25 S. 8th St., Rooms 426-28
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Richmond, IN 47374
(317) 966-8176

Dr. William Brown
Indiana University-East
Richmond, IN 47374
(317) 966-8261

Counties: 4

Fayette
Rush
Union
Wayne

Participants

Area I had a waiting list of approximately 125 income-eligible applicants. Area I applies a formula to determine the most needy and it is on this basis that participants are admitted to the program.

Total number of participants throughout summer: 376
White: 68% Black: 31% Other: 1%
14-15: 44% 16-17: 36% 18-19: 14% 20-21: 6%

SPEDY Program Overview

Area I had six different delivery systems for SPEDY. The basic philosophy which appeared to permeate all Area I SPEDY programs was a commitment to individualization which provided for a wide variety of career education activities and emphases within a site as well as between different sites using the same delivery mode. The six delivery systems employed were

1. Slide Presentation Groups had participants identify a career-education-related topic and produce a slide presentation on it.
2. Drama Presentation Groups had participants involved in the production and presentation of a children's drama or puppet show.
3. Modular Career Education Group which was a small group project-oriented experience where participants defined the projects to meet their identified needs and interests.
4. Rotating Program had one-third of the group each week rotating through a controlled work experience and two special projects--a bridge-painting experience and a park clean-up project.
5. Controlled Work Experience which was a modified Junior Achievement approach with participants establishing and managing all facets of manufacturing and distributing a product.
6. Work Experience with a weekly career education experience.

Each of these programs is discussed in more detail separately below.

SLIDE PRESENTATION GROUPS

Distinguishing characteristics of participants: Participants ranged from 14-20 years of age.

These programs followed the pattern of having participants define a topic for a slide presentation. Participants then scripted the presentation, shot the pictures, developed the presentation, and showed it one or more times. In addition to providing participants with opportunities to work cooperatively on a single project, it afforded them practice in making important contacts through meeting a great many people in the communities. The subject matter of the presentations was career education oriented. Therefore, participants in these programs had a considerably greater exposure to career education concepts and activities than is indicated by the thirty hours of direct formal career education to which each of these youth were exposed. This approach was new for Area I in 1973. Each of the seven groups had both a project leader and a participant team captain. Three of the project leaders serving four of the groups were either undergraduate or graduate students in the social or behavioral sciences. The fourth project leader was experienced in photo-journalism.

Program duration: 10 weeks, 30 hours per week, 300 hours.

Direct career education: 3 hours per week for 30 hours.

Emphasis on Survey Outcomes (varied considerably by project leader):

High emphasis was placed on:
- Self Esteem was approached by providing a variety of success experiences through job-task sampling for participants and by providing positive reinforcement for participants as they succeeded.
- Work-Related Attitudes also employed the success experiences plus guest speakers, individual counseling, group discussions, and audio-visual materials.
- Career Planning where the most popular activities were guest speakers, group discussion, and audio-visual materials.
- Sense of Control through individual counseling and group discussions.
- Job-Seeking Skills approached through lecture/demonstration activities, group discussions, and group audio-visual activities.

Medium emphasis:
- Attitudes toward Learning which used the same approaches as attitudes toward work.
- Job Specific Occupational Information which employed guest speakers, job-task sampling, and independent study.

Low emphasis:
- General Occupational Information
- Sex Equity

Two outcome areas not covered on the NICE but which were mentioned once each as receiving a high emphasis were developing self understanding and recognizing the validity of other's viewpoints.

DRAMA PRESENTATIONS

Distinguishing characteristics of participants: 14-18 years old.

There were four groups using this approach. One of them developed a puppet show for which they built the stage, scenery, and all of the paraphernalia including the puppets. Participants wrote the script. The show was presented at elementary schools and nursing homes. Specific assignments were made on the basis of participants' expressed interests. In addition to the thirty hours of formal career education exposure, there were daily discussions on how to handle different things of concern to the participants and which were career education oriented. The participants also were involved directly in the planning for and purchase of materials needed in the program. Participants also made macrame articles for fund-raising purposes.

The second drama group had each participant read a part of a children's play. Each participant became involved in the full range of activities required for a drama production including set design and construction, costuming, and performing. Two performances of the children's play were presented.

There were two other drama groups under the direction of a single individual but we were unable to schedule interviews with her.

Participants in the drama presentations had a considerably greater exposure to career education than is indicated by the thirty hours of direct formal career education to which each of these youth were exposed. The drama presentation approach was new to Area I in 1978. The project leader for the puppet group was an undergraduate student. The project leader for the children's play group has an MFA in scene design.

All groups had a participant team captain assisting the project leader.

Program duration: 10 weeks, 30 hours per week, 300 hours

Direct career education: 3 hours per week for 30 hours.

Emphasis on Survey Outcomes:

The puppet show group placed high emphasis on:
- -Self Esteem which was approached through valuing activities and providing participants with success experiences.
- -Work-Related Attitudes which employed the same techniques as did self esteem plus job-task sampling and individual counseling.
- -Sense of Control which employed the same techniques as did the work-related attitudes.
- -Job Specific Occupational Information which relied on job-task sampling, a guest speaker, independent study, and group audio-visual presentations.
- -Job-Seeking Skills which employed the same activities as job specific occupational information.
- -Career Planning which used the same approaches as job specific occupational information.

The puppet show group placed a medium emphasis on:
- -Attitudes toward Learning.
- -General Occupational Information.
- -Sex Equity all of which were approached through field trips, mini-field trips, and individual counseling.

The children's play group placed a high emphasis on:

-Work-related attitudes which were conveyed through slide presentations, group discussions, and by modeling activities as the participants worked on the production.

This group placed a medium emphasis on:

-Self esteem although the group members started with good self esteem, some valuing activities were used to reinforce it.

-Specific occupational information was approached through audio-visuals and group discussions.

All other areas received a low emphasis largely because it was felt that the group members did not need it.

Number of hours spent by each youth in activity types by group:

	Puppet	Play
Field trips	6	2
Mini-field trips	2	-
Guest speakers	1	-
Job-task sampling	11	-
Individual counseling	6	-
Independent study	1	3
Group A/V presentations	1	10
Group discussion	2	15

MODULAR PROGRAM

Distinguishing characteristics of participants: 5 participants

Program duration: 10 weeks, 30 hours per week, 300 hours. 100 hours direct career education throughout the 10 weeks.

Career Education Component

This highly individualized program served 4-6 participants and was housed at the Richmond IVY Tech Center. It was taught by an industrial arts teacher and was project oriented. The projects included model building, concrete work, and various activities in the building trades. The instructor was responsive to the identified needs of the group and used these to focus discussions and to develop activities. This approach was new for Area I in 1978. Because of the nature of this approach, the actual career education exposure for this group is probably closer to 300 hours.

Emphasis on survey outcomes: Because of the group size group discussions and individual counseling were the primary techniques employed for accomplishing all outcomes.

High emphasis was placed on:

-Work-Related Attitudes.
-Attitudes toward Learning.
-Sense of Control.
-Job-Seeking Skills.

Medium emphasis was placed on:

-Career Planning.
-Specific Occupational Information.
-General Occupational Information.

Low emphasis was placed on:
- -Self Esteem.
- -Sex Equity.

Number of hours spent by each youth in activity types:
- Individual counseling and group discussions: 65 hours
- Job-task sampling: 20 hours
- Mini-field trips: 10 hours
- Guest speakers: 5 hours

ROTATING PROGRAM

Distinguishing characteristics of participants: 14-18 year olds in a small town/rural setting.

Program duration: 10 weeks, 30 hours per week, 300 hours. 3 hours per week, 30 hours direct career education exposure. Although this is probably an under-estimate because of the controlled work experience facet of the program which could be considered a total career education experience.

Career Education Component

This program has one-third of the participants rotating through a controlled work experience and two special projects--a bridge painting project and a park clean-up project--each week so that any participant spent three weeks during the summer in each experience. The controlled work experience program had the participants working on macrame and other crafts projects which were sold from the store which also housed the program. The participants also cleaned and decorated the old store. The controlled work experience program started with an $800 materials' budget but additional materials were purchased with the proceeds from the sales of completed projects. There were two project leaders for this group--one a recent college graduate in psychology and the other a pre-med student--and a participant leader.

Total group size: 17
Age range of group: 14-18
Size of instructional groups: 5-6

Emphasis on survey outcomes:

High emphasis:
- -Self esteem success experiences, groups discussions, and individual counseling.
- -Work attitudes using job-task sampling, group discussions, and audio-visual materials.
- -Career planning through group discussions, audio-visual materials, and counseling.
- -Sense of control using the same techniques as career planning.

Medium emphasis:
- -Attitudes toward Learning used the same approaches as work attitudes.
- -Job-Seeking Skills employed the same techniques as career planning.
- -Sex Equity utilized group discussions and audio-visual materials.

Low emphasis:
- -Job Specific Occupational Information.
- -General Occupational Information.

Number of hours spent by each youth in activity types:

Audio-visual presentations:	11 hours
Group discussions:	11 hours
Individual counseling:	4 hours
Job-task sampling:	2 hours
Demonstration/lecture:	2 hours

CONTROLLED WORK EXPERIENCE

Distinguishing characteristics of participants: 14-20 year-old youth.

Program duration: 10 weeks, 30 hours per week, 300 hours. Three hours per week, 30 hours total direct career education exposure although because of the nature of these experiences, the actual career education exposure could be considerably in excess of this and could even be considered a total 300 hours career education experience.

Career Education Component

The controlled work experience program which was new to Area I in 1978 used a modified Junior Achievement approach where the participants establish a manufacturing and distribution organization producing and selling crafts articles and baked goods. Specific assignments were made on the basis of participant's interests. This approach was designed to provide more individual supervision and counseling than was possible in a traditional work experience. It was also designed to foster cooperative decision making and to provide a basic knowledge of the economic system. Participants were provided "seed money" and then they decided what to produce, how to produce it, and how to market it. Project leaders were a recent college graduate, a graduate student, and an undergraduate student. Each group had a participant leader.

Emphasis on survey outcomes varied from group to group but the average across groups were:

High emphasis placed on:
- -Self Esteem through providing participants with success experiences, group discussions, and peer support.
- -Sense of Control through individual counseling, group discussions, and valuing activities.
- -Career Planning through audio-visual materials and group discussions.

Medium emphasis was placed on:

- -Work-related attitudes by group discussions, individual counseling, valuing activities, and guest speakers.
- -Attitudes toward learning--same as work-related attitudes.
- -Specific occupational information through field trips, audio-visuals, group discussion, and independent study.
- -General occupational information using the same approaches as specific occupational information.
- -Job-seeking by completing sample applications, written handouts, and role playing.

Low emphasis was placed on:

- -Sex Equity.

The average number of hours spent by each youth in the various activity types across groups was approximately:

Field trips: 2 hours
Guest speakers: 2 hours
Job-task sampling: 4 hours
Individual counseling: 3 hours
Group discussions: 8 hours
Demonstration/lecture: 3 hours
Group A/V presentations: 6 hours
Independent study: 1 hour

WORK EXPERIENCE PROGRAMS

Distinguishing characteristics of participants: 14-21 years old.

Program duration: 10 weeks, 30 hours per week, 300 hours. 30 hours of career education, 3 hours per week for 10 weeks.

Career Education Component

Valuing and goal-setting activities appeared to receive a major emphasis in these groups. Also noted as of concern for most of these groups was the development of life skills such as personal finances and family planning and relations. The participants' work site experiences appeared to have provided the basis for individual counseling and a focus for discussions during the career education component.

Emphasis on survey outcomes: Varied considerably from group to group.

The following is based on averages across groups.

High emphasis was placed on:

- -Self esteem through group discussions, positive reinforcement at the work sites, and valuing activities.
- -Career planning by utilizing field trips, valuing activities, and group discussion.
- -Sense of control by using group discussion, valuing activities, and role models such as guest speakers and staff.

Medium emphasis was placed on:

- -Work-related attitudes through slide presentations, group discussions, role models, and valuing activities.
- -Attitudes toward learning by using group discussions, role playing, valuing activities, and role models.
- -Specific occupational information through the use of audio visuals, group discussions, and field trips.
- -General occupational information using the same approaches as noted for specific occupational information.
- -Job-seeking, same as specific and general occupational information.
- -Sex equity through group discussions and filmstrips.

The average number of hours spent by each youth in the various activity types across groups was approximately:

Field trips: 2 hours
Guest speakers: 2 hours
Job-task sampling: 3 hours
Individual counseling: 2 hours
Group discussions: 12 hours
Demonstration/lecture: 2 hours
Group A/V activities: 4 hours
Independent study: 1 hour

Work Experience Component

The work sites themselves were varied and ranged from groundswork at IU East to service projects at the Indiana Soldiers and Sailors Childrens Home.

AREA J

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Counties: 9

Dearborn
Decatur
Franklin
Jefferson
Jennings
Ohio
Ripley
Scott
Switzerland

SPEDY Staff (selected list)

Director: New this year. Twelve month position with YETP as well as SPEDY responsibilities.

Career education staff: Thirteen vocationally certified secondary teachers deliver career education instruction under the leadership of a vocational administrator and a lead teacher. Of the fifteen individuals involved in the career education component, eleven have been involved in previous years.

Work experience staff: Twelve full-time SPEDY coordinators serve the nine counties. Nine of the SPEDY coordinators are new to the program this year.

Participants

Criteria for selection among income-eligible applicants: If there are more income-eligible applicants in an Area J county than can be accommodated in SPEDY, priorities for admission are established using the same formula in all counties. The formula is family income divided by the number of family members. The lowest per family-member-income applicants are assigned the highest priority for admission to SPEDY. Across the nine counties there was a waiting list of approximately 20% of the enrollment. The size of the waiting list ranges from 30% of the enrollment in Jefferson County to 5% in Ohio County. Area J had available enough work-site slots to serve an additional 30-40 individuals and enough applicants to place that many additional participants. Area J's allotment, however, is not sufficient to fill all of the available work-site slots.

Total number of participants throughout summer: 570
White: 97% Black: 3% Other: 1%
14-15: 44% 16-17: 40% 18-19: 12% 20-21: 4%

SPEDY Program Overview

During the first week of this ten-week program each participant received a one-day orientation which was held at the Southeastern Indiana Vocational School (SIVS) in Versailles. During the remaining nine weeks each enrollee was bused to the SIVS for a one-week career education experience. The career education experience for first-time participants was different than the experience for individuals who had a previous SPEDY experience.

Program duration: 10 weeks, 32 hours per week, 320 hours maximum. Included 40 hours of career education through one 32-hour week and 8 hours during each participant's orientation day.

Career Education Components

All first-time participants in Area J's SPEDY enrolled in a one-week Career Exploration Program. The Career Exploration Program was in 1978, in its fourth year of operation. Individuals who had previously had a SPEDY experience enrolled in a one-week Career Enrichment Program. The summer of 1978 was the first time the Career Enrichment Program was offered and it was instituted partially as a response to former participants' requests and partially in response to ODC requests. Both programs placed a strong emphasis on utilizing participants' work experience during the career education classroom segments. On orientation day, the groups were kept together for general activities of an organizational nature but were separated for activities specific to their program with the advanced group presentation emphasizing the responsibilities of an employee.

Career Exploration Program

Participants selected five areas of exploration from these ten:

Business Occupations
Building Trades
Cosmetology*
Electricity/Electronics
Food Services
Health Occupations
Machine Trades
Auto/Diesel Mechanics
Printing
Welding

During their week at SIVS each participant explored one of the five selected areas for each of the five six-hour days.

Size of instructional groups: 11-17, average 15.

Emphasis on survey outcomes:

High emphasis was placed on:
- -Attitudes Toward Learning. By opportunities to experience success and positive reinforcement from instructors for their accomplishments.
- -Work-Related Attitudes Job-Coping Skills. Especially safety practices through films and infused into job-task sampling activities. See attitudes toward learning for other strategies.
- -Job-Specific Occupational Information. Job task sampling, discussions of career opportunities, guest speakers from State Police and armed forces.
- -Career Planning. Practice in decision-making, including choice of modules to explore. Emphasis on value of identifying career areas which the youth does not find interesting, as well as those which are appealing.

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*Cosmetology was a new area added in 1978 as a response for additional female-oriented experiences.

-Job-Seeking Skills. Discussions, practice interviews, and job applications.
-Sex Equity. Film "Freedom Train." Youth were also encouraged to explore nontraditional career area modules.

Medium emphasis:
-Self Esteem. See attitudes toward learning for strategies.
-General Occupational Information. See job-specific occupational information.
-Sense of Control. High emphasis placed on self discipline. Rules were defined, then youth were given a great deal of freedom until they demonstrated an inability to handle it. Staff conveyed that they expected positive behavior and refrained from punishing groups for individual's infractions. This approach appeared successful; even though enrollees did not always wish to participate in the career education component, they tended to behave well at SIVS. Other aspects of sense of control emphasized less, addressed in class discussions.

Estimated time spent by each youth in activity types:
Job-task sampling: 24½ hours
Guest speakers: 3¼ hours
Group A/V presentations: 3¼ hours
Group discussions, etc.: 1½ hours

Work Experience Component

See below.

Career Enrichment Program

Participants ranked (1,2,3) three areas from the ten listed above under the Career Exploration Program. They were then placed in one of these areas for a week's indepth experience. Most participants were placed in their first choice areas.

Size of instructional groups: 15-18, average 16

Emphasis on outcomes: The ratings of emphasis and the strategies employed were the same as those noted above for the Career Exploration Program.

Estimated time spent by participants in activity types:
Job-task sampling: 28 hours
Guest speakers: 1½ hours
Group discussions: 1½ hours
Group A/V presentations: 1½ hours

Work Experience Component

(Same for both the Career Exploration and the Career Enrichment Programs)

Number of youth per work site: 1-14, average 4

SPEDY staff communications with work site personnel: SPEDY coordinators visit each site at least once every two weeks.

Sites used in Area J provided a variety of opportunities for on-the-job training. Representative of the opportunities were placements with a county agency, in a hospital kitchen as a salad maker, and in a Head Start Day Care Center as teacher assistants. However, approximately 75% of the work experience opportunities involved building and/or grounds clean-up work.

Special Projects

There were six special projects operating in Area J. 1. In Dearborn County SPEDY participants worked on the repair and painting of the homes of the elderly through Friendly Services. 2. In Franklin County they worked for the town of Laurel by building a baseball field and 3. learning to repair streets. 4. In Switzerland County they renovated county graveyards and worked for the town of Patriot. 5. In Jefferson County participants worked for the Boys Club and cleaned up a riverfront. 6. In Ohio County participants worked at the Historical Society in Rising Sun as tour guides and as custodial repair staff.

Other SPEDY Activities

Participants in the Career Education Program also participated in a one-hour lecture/discussion presentation on the topic of drug abuse.

Test Results

Area J Career Exploration

Number of pre-tests scored	Form A: 119	Form B: 160
Number of post-tests scored	Form A: 98	Form B: 79

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	15	2	17	23	6	29
Females	13	3	16	15	9	24
Total	28	5	33	38	15	53

Priority of outcome and scale names	N	Means and (Std. Dev.)		Mean Gain		Difference Sig. ?	Footnotes
		Pre	Post	Raw	in σ's		
High Priority Outcomes							
Work-Related Attit.	33	49.61 (6.65)	48.48 (9.81)	-1.12	-.15		1
Job-Seeking Skills	33	12.45 (3.36)	12.33 (3.55)	- .12	-.03		
Job.-Spec. Occ. Info.	33	21.67 (3.42)	20.85 (4.47)	- .82	-.18		
Career Planning	53	62.36 (9.55)	62.91 (9.99)	.55	.05		
Attit. tow. Learning	53	35.81 (5.40)	34.79 (6.58)	-1.02	-.14	$p < .05$	
Sex Equity	53	21.30 (7.95)	23.08 (8.49)	1.77	.24	$p < .05$	
Medium Priority							
Sense of Control	33	15.55 (3.71)	16.30 (4.36)	.76	.18		
Self Esteem	52	43.25 (6.54)	44.31 (8.01)	1.06	.14		
Gen. Occ. Info.	52	12.56 (3.86)	13.29 (3.76)	.73	.23	$p < .10$	

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[1] Males descreased significantly (.61 σ's) while females improved significantly (.35).

Test Results

Area J Career Enrichment

Number of pre-tests scored	Form A: 62	Form B: 78
Number of post-tests scored	Form A: 57	Form B: 39

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	5	5	10	7	6	13
Females	3	7	10	6	8	14
Total	8	12	20	13	14	27

Priority of outcome and scale names	N	Means and (Std. Dev.)		Mean Gain		Difference Sig. ?	Footnotes
		Pre	Post	Raw	in σ's		
High Priority Outcomes							
Work-Related Attit.	20	51.45 (8.06)	50.25 (12.36)	-1.20	-.16		
Job-Seeking Skills	20	14.25 (2.45)	14.00 (3.06)	- .25	-.07		
Job-Spec. Occ. Info.	20	21.15 (3.72)	21.05 (5.03)	- .10	-.02		
Career Planning	27	58.37 (13.39)	56.04 (16.99)	-2.33	-.22		
Attit. tow. Learning	27	32.33 (7.48)	30.37 (10.03)	-1.96	-.28	$p < .10$	
Sex Equity	27	23.37 (8.36)	22.26 (10.34)	-1.11	-.15		
Medium Priority							
Sense of Control	20	16.30 (4.49)	17.65 (3.65)	1.35	.33		1
Self Esteem	27	39.70 (5.77)	38.78 (10.49)	- .93	-.13		
Gen. Occ. Info.	26	13.08 (3.76)	13.08 (4.38)	.00	.00		

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[1] Females improved significantly (.35 σ's).

AREA K

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Counties: 4

Clark
Crawford
Floyd
Harrison

SPEDY Staff (selected list)

Director: Each of the four counties had a SPEDY Coordinator who reported to the ODC's Director of Development who also served as Area K's SPEDY Director. He was new this year.

Career education staff: There were twelve career education teachers plus a director involved in the Occupational Awareness Training (OAT) Program offered in Floyd County. All of the OAT teachers were certified secondary teachers from the area. There were four career education programs; these were led by a graduate student, an undergraduate student, an elementary teacher, and a psychologist. All but one of the seventeen individuals who provided career education in Area K were new to SPEDY this year.

Work experience staff: There were ten work experience supervisors in the four counties, two of which had previous involvement in SPEDY.

Participants

Criteria for selection among income-eligible applicants: Area K does not have a waiting list. All income-eligible applications are served and more could be served.

Total number of participants throughout summer: 648

White: 58%   Black: 42%   Other: 1%
14-15: 38%   16-17: 36%   18-19: 19%   20-21: 7%

SPEDY Program Overview

Area K had four different delivery systems for SPEDY. The first of these used a traditional work experience approach. The second was a school based Occupational Awareness Training Program (OAT) housed in C. A. Prosser Area Vocational Center. The remaining two programs were housed at the ODC in Clark County and involved participants in classroom experiences employing a Junior Achievement approach (WORD) and an audio-visual, discussion approach (MORE).

Career Education Components

Work Experience

Participants

Distinguishing characteristics of participants: In Clark and Floyd counties, participation in the Work Experience programs was limited to participants seventeen years of age or older. In the rural counties of Crawford and Harrison all youth who participated in the SPEDY program were involved in Work Experience.

Total enrollment: 340

Program Overview

This program was administered by each county's SPEDY coordinator who also aided in work site supervision. In Crawford and Harrison counties the career education teacher also supervised work sites. In Clark and Floyd counties there were work site supervisors.

Program duration: 30 hours per week, ten weeks, total 300 hours. Included an average of 53 hours career education which varied with each group from 36 to 64 hours.

Career Education Component

Career education sessions were held once a week in a classroom setting for all of the work experience programs except Clark County's career education component which consisted of a weekly field trip.

Size of instructional groups: The group sizes varied from twenty in Floyd County to 100 in Clark County for the 17-21 year-old groups with an average of 53 17-21 year-old participants per group. Both of the 14-16 year-old groups had 36 participants.

Emphasis on survey outcomes: As can be seen from an inspection of Table A, the emphasis placed on survey outcomes varied considerably from group to group. Below are averages across counties for the 14-16 year-old groups and for the 17-21 year-old groups separately.

On the average for the 14-16 year-old groups

High emphasis was placed on:
- Self Esteem
- Work-Related Attitudes
- General Occupational Information
- Job-Seeking Skills

Medium emphasis:
- Attitudes toward Learning
- Career Planning
- Sense of Control

Low emphasis:
- Job Specific Occupational Information
- Sex Equity

On the average for the 17-21 year-old groups

High emphasis was placed on:
- Job Specific Occupational Information

Medium emphasis:
- Work-Related Attitudes
- Attitudes toward Learning
- General Occupational Information
- Job Specific Occupational Information
- Job-Seeking Skills

Low emphasis:
- Self Esteem
- Career Planning
- Sense of Control
- Sex Equity

On the average estimated time spent by 14-16 year-old in activity types was
Field trips: 12 hours
Group A/V: 6 hours
Guest speakers: 4 hours
Demonstration/lecture: 4 hours
Independent study: 4 hours
Job-task sampling: 2 hours
Group discussion: 4 hours

The average estimated time spent by the 17-21 year-old participants in activity types was
Field trips: 30 hours
Group A/V activities: 7 hours
Guest speakers: 5 hours
Group discussion: 4 hours
Independent study: 4 hours
Demonstration/lecture: 3 hours
Job-task sampling: 1 hour
Individual counseling: 1 hour

Some of the strategies employed to accomplish the outcomes with both the 14-16 and the 17-21 year-old groups were self esteem--providing the positive feedback to reinforce positive behavior--and group discussions. All other outcomes were approached with a variety of strategies including field trips, guest speakers, simulated interviews, A/V materials, and group discussion.

TABLE A

County Differences in Work Experience Program

	Ages 14-16			Ages 17-21					
	Crawford	Harrison	Average	Clark	Crawford	Floyd	Floyd	Harrison	Average
Number of hours career education	36	36	36	48	54	60	60	54	53
Size of instructional groups	40	35	37	98	23	50	20	35	46
Emphasis on survey outcomes 1=high; 2=medium; 3=low									
-Self Esteem	2	1	1.5	3	1	2	2	1	2.6
-Work Related Attitudes	1	2	1.5	2	1	2	2	2	1.9
-Attitudes toward Learning	2	3	2.5	2	2	3	3	3	2.5
-Career Planning	2	2	2	3	1	3	3	1	2.8
-Sense of Control	3	2	2.5	3	3	3	3	2	2.7
-Specific Occupational Information	3	3	3	1	1	1	1	3	1.3
-General Occupational Information	1	2	1.5	3	3	1	1	2	2.0
-Job Seeking	2	1	1.5	3	1	2	2	2	2.0
-Sex Equity	3	3	3	3	3	3	3	3	3.0
Number of hours spent by each youth in activity types									
-Field trips	12	11	12	48	14	36	36	15	30
-Guest Speakers	4	5	4	-	6	6	6	8	5
-Job Task Sampling	4	-	2	-	6	-	-	-	1
-Group Discussion	3	5	4	-	5	3	3	8	4
-Demonstration/lecture	3	5	4	-	6	1	1	7	3
-Individual Counseling	-	-	-	-	-	2	2	-	1
-Independent Study	3	5	4	-	6	3	3	8	4
-Group A/V Activities	7	5	6	-	11	9	9	8	7

WORKSHOP FOR OCCUPATIONAL RESEARCH AND DEVELOPMENT

WORD

Clark County's 14-16 year-old SPEDY participants were placed into either the WORD or the MORE programs (see below) on a more or less random basis. If a participant expressed a preference for one program over the other, an effort was made to place on the basis of that preference. The WORD Program was nine weeks long and met for four hours each afternoon at the ODC in Jeffersonville. Participants received approximately 180 hours of exposure to the program during the summer. It was team taught by individuals who had social work and educational psychology backgrounds. WORD has an enrollment of forty participants.

WORD provided career education experiences indirectly through a Junior Achievement approach although more emphasis was placed on the development of interpersonal skills and personal counseling than would ordinarily have been true.

The following three areas were identified as receiving incidental emphasis in WORD:

1. Career planning
2. Job-seeking skills, and
3. Sex equity concepts.

Areas identified as receiving formal attention but as being of secondary concern in the WORD program were:

1. Sense of control was approached indirectly by providing success experiences, through group discussions, and individual counseling.
2. Specific occupational information was provided through job-task sampling within the Junior Achievement framework as well as through field trip experiences.
3. General occupational information employed the same strategies as specific occupational information.

Major thrusts for the WORD program were identified as:

1. Developing self esteem: same approaches as sense of control.
2. Developing positive attitudes toward work: same techniques as sense of control.
3. Developing positive attitudes toward learning: same strategies as sense of control.

Two additional major emphases were identified for the WORD program. These were developing leadership skills through the various roles participants played in the Junior Achievement approach and fostering an understanding of the economic system through participation in a simulated corporate environment.

The table below summarizes the instructors' estimates of the hours spent by the WORD participants in various activities during the program.

Type of activity	Hours	Comments
Field trip (more than 5 participants) mini-field trips (less than 5 participants)	27	Participants obtained raw materials and sold products as individuals and in small groups
Guest speakers	9	
Job task sampling	90	
Individual counseling	18	
Independent study	18	Limited to the Junior Achievement Manual
Group discussion	18	All participants are members of the Board of Directors and most of the discussion takes place at these meetings. During the first two weeks up to 50% of time was spent in group discussion as WORD was organizing.

It was noted that the lecture method was used in the beginning of the program as the program was explained to participants and rules and guidelines were presented. It was estimated, however, that the demonstration/lecture approach was used less than 2% of the time overall.

The WORD program was new to Area K this year.

MULTI-OCCUPATIONAL RESEARCH AND EXPLORATION

MORE

Clark County's 14-16 year-old SPEDY participants not involved in WORD participated in MORE. The MORE program was nine weeks in duration and met at the ODC in Jeffersonville for four hours each morning. The forty participants enrolled received approximately 180 hours of direct or indirect career education exposure through MORE during the summer. It was team taught by individuals who have backgrounds in social work and educational psychology. MORE used Singer career education materials and focused on developing communication and self-evaluation skills as well as the development of effective interpersonal relations. Developing job survival skills was also emphasized in MORE. Participants were made aware of jobs that are available in their communities, were exposed to job clusters through filmstrips, and completed a job investigation of interest to them. On completion of the job investigation, the participants presented the job to the other participants by role playing as if they were employed in the job investigated.

It was indicated that the following areas were major thrusts for the MORE program.

1. Self esteem: success experiences were provided through participant-led classes, filmstrips were also used as discussion starters.

2. Attitudes toward learning: guest speakers, group discussions, and success with a personalized investigation which involved independent study and a presentation of the results of that study before the total group.
3. Sense of control: employed the same techniques as self-esteem.
4. General occupational information: filmstrips and group discussion.

Areas identified as receiving formal attention but as being of secondary concern in the MORE program were:

1. Attitudes toward work: field trips, guest speakers, and group discussions.
2. Career planning: an indepth exploration of a career of interest to each youth and a presentation to the group as the youth role plays an individual in the occupation explored.
3. Specific occupational information: same as career planning.
4. Job-seeking skills: filmstrips, guest speakers, group discussions. Sex equity received incidental emphasis in the MORE program. It should be noted, however, that the instructors agreed that the materials used in MORE were sex fair.

The table below summarizes the instructors' estimates of the time spent by MORE participants in various activities during the program.

Type of activity	hours
Field trips (more than 5 participants)	18
Guest speakers	18
Job-task sampling	9
Individual counseling	9
Independent study	36
Filmstrips	18
Group discussions (including participant-led)	63
Demonstration/lecture	9

The MORE program was new to Area K this year.

OCCUPATIONAL AWARENESS TRAINING-OAT

The OAT program was offered to Floyd County's 14-16 year-old eligibles and served more than 106 participants. Participants for OAT were selected by the ODC, but the program was administered by the New Albany-Floyd County School Corporation. The OAT program was housed at C.A. Prosser Area Vocational School and was team taught by twelve regular New Albany-Floyd County School Corporation secondary faculty. As noted in the program's funding proposal:

> . . . The primary educational objectives of this intensive summer program are (A) to impart career information about selected clusters of occupations that will prepare the participants to make more informed career choices, and (B) develop job acquisition and retention skills . . .

The OAT program was ten weeks in duration, but participants enrolled during the first week and spent the tenth week at the SPEDY office and participating in field trips so they were actually active in OAT for eight weeks for a total of approximately 140 hours of formal career education exposure. Participants were paid a minimum wage for attendance in the program.

Classes met five days a week for 3.5 hours each day. Each participant worked in four clusters for two weeks each. All participants were involved in a two week job skills class plus three two week occupational clusters selected by the participant from the five offered. The five clusters available plus the job skills clusters are briefly described as:

Consumer Education: Those occupations connected with the movement, merchandise, sale, and consumption of a product will be discussed. The food and fast-food industry will also be discussed.

Metals Manufacturing: Jobs such as the language of metals (drafting) and the fabrication of metals such as in machine shop, and the welding shop will be covered. Some hands-on projects will provide the outlet for information acquired.

Business Education: All of the jobs pertaining to the business world will be included in this class. Office occupations as well as those in insurance, etc., will be discussed.

Communications Education: Many job classifications are grouped into this course. The electronic areas of radio, TV; the fields of printing and graphic art are just a few of the occupations.

Transportation Careers: This class will cover the manufacturing, mechanical repair, body repair, and parts operation of the industry. Small gasoline engines to large diesel units will be discussed.

Job Skills: This course should help the participants with their job-getting skills, learn what an employer expects from workers, and discuss relationships with fellow workers.

Size of instructional groups: 11-25, average 17

Emphasis on survey outcomes:

High emphasis was placed on:
- -Self Esteem: emphasis was placed on the positive characteristics of each youth with the staff serving as models. Self examination was encouraged, filmstrips in job skills areas, group discussions, and demonstration/lecture.
- -Attitudes toward Work: filmstrips and group discussion were the primary strategies employed.
- -Sense of Control: class discussion and individual counseling were the primary approaches used. The OAT director counseled each participant at least once during the summer. This concept was pushed hardest in the job-skills module.

Medium emphasis:

-Attitudes toward Learning: illustration by staff model, guest speakers, group discussions, and field trips were the techniques employed.

-Specific Occupational Information: job-task sampling was the primary mode of delivery.

-Job-Seeking Skills: this was emphasized in each module primarily through group discussions.

-Sex Equity: was emphasized through lecture, field trips with exposure to nontraditional roles, and filmstrips.

Low emphasis:

-Career Planning: approached indirectly by providing general and specific occupational information.

-General Occupational Information: was covered by demonstration/lecture and filmstrips primarily in the business and job-skills modules.

Estimated time spent by each youth in activity types.

Field trips: 12½ hours
Guest speakers: 14 hours
Job task sampling: 70 hours
Individual counseling: 1½ hours
Independent study: 7 hours
Group A/V activities: 14 hours
Demonstration/lecture: 21 hours

Test Results

Area K Work Experience 14-16 year-olds

Number of pre-tests scored	Form A: 30	Form B: 19
Number of post-tests scored	Form A: 43	Form B: 25

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	9	0	9	7	0	7
Females	14	0	14	8	0	8
Total	23	0	23	15	0	15

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Foot-notes
High priority outcomes							
Work-Related Attit.	23	52.17	50.70	-1.48	-.19		
		(7.54)	(10.59)				
Job-Seeking Skills	22	13.36	13.18	- .18	-.06		
		(3.42)	(4.53)				
Self Esteem	15	40.80	43.33	2.53	.34		
		(7.69)	(6.77)				
Gen. Occ. Info.	14	10.29	11.00	.71	.19		
		(4.14)	(3.35)				
Medium Priority							
Sense of Control	23	16.48	17.17	.70	.17		1
		(4.33)	(4.26)				
Career Planning	15	62.60	64.73	2.13	.20		
		(12.87)	(10.52)				
Attit. tow. Learning	15	32.87	33.87	1.00	.14		
		(7.59)	(7.86)				
Low Priority							
Job-Spec. Occ. Info.	23	22.13	20.43	-1.70	-.37	$p < .05$	
		(4.36)	(5.41)				
Sex Equity	15	27.00	27.93	.93	.12		
		(7.09)	(8.92)				

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[1] Females' improvement was significant (.24 σ's).

Test Results

Area K Work Experience 17-21 year-olds

Number of pre-tests scored	Form A: 86	Form B: 84
Number of post-tests scored	Form A: 68	Form B: 73

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	0	12	12	0	16	16
Females	0	27	27	0	26	26
Total	0	39	39	0	42	42

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Job-Spec. Occ. Info.	38	22.47 (4.34)	22.68 (4.13)	.21	.04		
Medium Priority							
Work-Related Attit.	39	53.64 (6.45)	52.44 (8.38)	-1.21	-.16		
Job-Seeking Skills	39	14.87 (3.25)	15.54 (3.69)	.67	.18	$p < .10$	
Attit. tow. Learning	42	35.67 (5.93)	35.40 (7.54)	- .26	-.04		1
Gen. Occ. Info.	41	13.27 (3.74)	12.80 (4.33)	- .46	-.15		
Low Priority							
Sense of Control	39	17.28 (4.35)	17.77 (4.48)	.49	.12		2
Self Esteem	42	42.64 (7.91)	43.86 (8.49)	1.21	.16		
Career Planning	42	63.93 (9.32)	64.10 (12.95)	.17	.02		
Sex Equity	42	26.29 (6.54)	27.69 (7.14)	1.40	.19		

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[1] Females improved significantly (.21 σ's).

[2] Males improved significantly (.50).

Test Results

Area K OAT

Number of pre-tests scored	Form A: 44	Form B: 49
Number of post-tests scored	Form A: 36	Form B: 43

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	16	0	16	20	0	20
Females	13	0	13	19	0	19
Total	29	0	29	39	0	39

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Work-Related Attit.	29	48.41 (7.22)	49.48 (6.59)	1.07	.14		
Sense of Control	29	14.66 (4.00)	14.69 (4.06)	.03	.01		
Self Esteem	39	44.28 (7.68)	43.85 (8.03)	- .44	-.06		
Medium Priority							
Job-Seeking Skills	29	10.97 (3.03)	12.55 (3.37)	1.59	.43	$p < .01$	
Job-Spec. Occ. Info.	29	19.72 (3.92)	20.69 (3.69)	.97	.21		1
Attit. tow. Learning	39	35.05 (4.16)	35.38 (5.91)	.33	.05		2
Sex Equity	39	25.21 (6.15)	24.49 (8.44)	- .72	-.10		
Low Priority							
Career Planning	39	65.26 (6.58)	65.85 (8.70)	.59	.05		
Gen. Occ. Info.	37	11.62 (3.84)	13.11 (3.18)	1.49	.44	$p < .05$	

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[1] Females' improvement was significant (.38 σ's).

[2] Females improved significantly (.24).

AREA L

Sponsoring Agency

Economic Opportunity Committee

ODC Director

Donna Klein

Contact Person

Donna Klein
Occupational Development Center
P.O. Box 638
Vincennes, IN 47591
(812) 882-7927

Counties: 5

Daviess
Greene
Knox
Martin
Sullivan

SPEDY Staff (selected list)

Director: SPEDY experienced. Summer position but is ODC Operations Officer/Assistant Director throughout the year.

Work experience and career education staff: An education specialist and a test examiner/counselor were employed at the area-wide level. Curriculum was developed at the area level through staff meetings with county counselors. Each county had one or two counselors for career education and one or two "generalists" for administering the work experience component. All but one of the 13 staff counselors were teachers and/or counselors in local schools. Of the six career education counselors, five worked for SPEDY last year, and one was a first-year employee. The Vincennes University program was taught by the University staff.

Participants

Criteria for selection among income-eligible applicants: First come-first serve based on work site availability.

Total number of participants throughout summer: 574
White: 96% Black: 4% Other: 1%
14-15: 43% 16-17: 39% 18-19: 13% 20-21: 5%

SPEDY Program Overview

Area L had two programs: the work experience program and the Vincennes University program. The Vincennes program involved 14- and 15-year olds in Knox County; all other Area L participants were in the general program.

The general program resembles the SPEDY program of the last several years, although the duration of its career education component had been increased from zero three years ago to about 28 hours this year. The program's main emphasis was on the work experience component primarily because Area L interprets SPEDY's purpose as financial assistance to youth with opportunities to engage in constructive work activities.

Area L plans to expand its career education activities in the future, as they see the purpose of participant pay moving from "wages" to "allowances" and IOMD's guidelines becoming more flexible. The program affiliated with Vincennes University, which consisted entirely of career education training, was conducted as an experiment in preparation for future increased emphasis on career education for all Area L participants.

WORK EXPERIENCE PROGRAM

Participants

Distinguishing characteristics of participants: All but those in the Vincennes University program.

Program Overview

Program duration: 10 weeks, 30 hours per week, 300 hours maximum. Included an average of 28 hours of career education.

Career Education Component

Career education activities consisted of one-on-one and/or small group career counseling, mini-field trips, and several large group sessions. The large group sessions relayed information such as health practices and job seeking information (job application and resume completion) to the participants. The career counseling component included personal counseling (usually conducted at the work site) and "Singer" filmstrips (shown at the SPEDY office) to present individually relevant career education materials. Field trips allowed participants to view real work settings for jobs that interested them. Participant interests were determined by a survey and through counseling.

Emphasis on survey outcomes:

High emphasis was placed on:
- -Attitude toward Work. Individual counseling.
- -Career Planning. Individual counseling and materials.
- -Self Esteem. Individual counseling.

Medium emphasis:
- -Sense of Control. Individual counseling
- -General Occupational Information. Individual counseling and materials.
- -Specific Occupational Information. Field trips and materials.
- -Attitudes toward Learning. Counseling and materials.
- -Job-Seeking Skills. Field trips, counseling, materials.

Low emphasis:
- -Sex Equity.

Estimated time spent by each youth in activity types:

Field trips: 7 hours
Mini-field trips: 7 hours
Individual or small group counseling: 7 hours
Lecture: 7 hours

Work Experience Component

Number of youth per work site: 1-22, average 3

Method of site assignments:

Participant work site placement was achieved by considering the following three factors (ranked by importance)

1. Labor law, especially with clients under 16 years of age
2. Proximity to work site
3. Participant preference

SPEDY staff communications with work site personnel: The Career education counselor, with feedback from the "generalist", coordinated work site activities. In three counties, visits were made to work sites at least once per week, in the other two counties, visits were made when needed.

VINCENNES UNIVERSITY PROGRAM

Participants

Distinguishing characteristics of participants: 14- and 15-year olds from Knox county who had not participated in SPEDY before.

Total enrollment: 25

Program Overview

Program duration: 8 weeks, 2 day/week, 4 hours/day, 64 hours.

Career Education Component

Youth explored twenty occupational areas offered at Vincennes University. Examples are nursing, accounting, criminalistics, and recreation. Each of the twenty modules was either two or four hours in length and was taught by an instructor in the area.

Size of instructional groups: Average of 12

Emphasis on survey outcomes:
High emphasis was placed on:
-Job-Specific Occupational Information.

Medium emphasis:
-General Occupational Information.
-Sex Equity. All youth explore all areas, including those stereotyped for the opposite sex.

Low emphasis:
-Self Esteem.
-Sense of Control.
-Attitudes toward Learning.
-Job-Seeking Skills.
-Career Planning.
-Attitudes toward Work.

Estimated time spent by each youth in activity types:
Lecture/demonstration: 39 hours
Job task sampling: 18 hours
Field trips: 4 hours
A/V presentations: 3 hours

Test Results

Area L Work Experience Program

Number of pre-tests scored Form A: 186 Form B: 192
Number of post-tests scored Form A: 141 Form B: 131

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	33	14	47	33	15	48
Females	32	22	54	36	25	61
Total	65	36	103	69	40	109

Priority of outcome and scale names	N	Means and (Std. Dev.)		Mean Gain		Difference Sig. ?	Footnotes
		Pre	Post	Raw	in σ's		
High Priority Outcomes							
Work-Related Attit.	101	52.21 (6.46)	52.96 (7.27)	.75	.10		
Self Esteem	109	42.96 (6.62)	42.72 (7.19)	- .25	-.03		
Career Planning	109	63.97 (9.78)	65.50 (11.44)	1.52	.14	$p < .10$	
Medium Priority							
Sense of Control	100	16.96 (4.17)	17.13 (3.95)	.17	.04		
Job Seeking Skills	101	12.61 (3.75)	13.27 (3.89)	.65	.18	$p < .10$	
Job-Spec. Occ. Info.	100	21.20 (4.64)	22.03 (4.97)	.83	.18	$p < .05$	
Attit. tow. Learning	108	34.92 (6.00)	35.50 (7.25)	.58	.08		1
Gen. Occ. Info.	107	12.54 (4.57)	12.93 (4.32)	.38	.12		2
Low Priority							
Sex Equity	109	24.29 (7.67)	25.32 (7.57)	1.03	.14	$p < .10$	3

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[1] 14-16 year-olds improved significantly (.24 σ's).

[2] 14-16 year-olds improved significantly (.29).

[3] 14-16 year-olds and males account for the overall improvement; older participants and females did not improve.

AREA M

Sponsoring Agency

Monroe County Community Action Agency

Contact Person

Marilyn Moorhead
Occupational Development Center
112 S. College Avenue
Bloomington, IN 47401
(812) 332-3777

ODC Director

Sharry McClung

Counties: 5

Jackson
Lawrence
Monroe
Orange
Washington

SPEDY Staff (selected list)

Director: New this year. Summer position.

Career exploration staff: A director and career exploration specialist administered SPEDY at the area level and a career exploration counselor was located in each of the four counties with career exploration programs. The counselors have had counseling experience through other service programs, and were new to the SPEDY staff. Teachers from vocational schools were employed to conduct the career exploration modules.

Work experience staff: One or two work experience counselors were located in each county with a work experience program. Two of the work experience counselors are teachers during the academic year. The other three counselors have had counseling experience either through SPEDY or other service programs. Three of the work experience counselors were involved in SPEDY in past years.

Participants

Criteria for selection among income-eligible applicants: First come, first serve.

Total number of participants throughout summer: 716

White: 95% Black: 4% Other: 1%
14-15: 47% 16-17: 40% 18-19: 11% 20-21: 2%

Program Overview

Area M is currently involved with two programs: work experience and career exploration. Area M has been involved with career exploration programs for a number of years, and due to their success, they believe that the needs of younger SPEDY participants may best be met through career exploration. Because of problems with work site availability, especially for participants under 17, and because of perceived movements at the federal level to make more money available for career education activities, Area M is continually increasing the number and scope of career exploration programs. Of the five counties in Area M, two offered career exploration programs exclusively, one county offered work experience exclusively but bused participants interested in career exploration to another county, and two counties offered both career exploration and work experience programs. Three of the career exploration county sites were new this year.

Participants were placed in a program by individual preference as determined during intake activities, but the younger individuals were encouraged to enroll in career exploration.

Both programs included two weeks of orientation which involved 10 hours of career education activities and 10 hours of administrative and SPEDY orientation activities. The 10 hours of career education activities involved large group demonstration/lecture or guest speaker presentations. The additional eight weeks were spent either in a one hundred percent career exploration program or a work experience program with 2 hours per week in group counseling.

CAREER EXPLORATION PROGRAM

Program Overview/Career Education Component

Program duration: Lawrence and Monroe counties--10 weeks; for 8 weeks 30 hours per week for 2 weeks, 10 hours per week, 260 total hours. Orange and Washington counties--9 weeks; for 7 weeks, 35 hours per week for 2 weeks, 10 hours per week, 265 total hours. All career education.

The programs were located in area vocational schools in **each of four counties**: Orange, Washington, Lawrence, and Monroe. Activities consisted of job task sampling, group counseling/discussion, mini-field trips, and individual counseling. Small groups of clients were rotated through 4 to 8 different vocational areas at the school, such as building trades, commercial foods, woodworking, and business education. The number of occupational areas varied by county and depended on the availability of vocational education staff. Participants spent 8 working days in one area then rotated to another area for 8 days, etc. Each client went through each of the areas available in her/his county.

Size of instructional groups: average of 9.

Emphasis on survey outcomes:

High emphasis was placed on:
- Self Esteem. Covered mostly in individual counseling.
- Sense of Control. Covered in group discussions.
- Attitudes toward Work. Covered mostly in individual counseling.

Medium emphasis was placed on the following outcomes, addressed through group discussions:
- Job Seeking Skills.
- Career Planning.
- Attitudes toward Learning.
- General Occupational Information.
- Specific Occupational Information.
- Sex Equity.

Low emphasis:
- None.

Estimated time spent by each youth in activity types:
Job-task sampling: 227 hours
Demonstration/lecture: 10 hours during orientation.
Group discussion: 12 hours, 1½ hours per week for 8 weeks.
Field trips: 3½ hours, one trip each, average group size 15.
Mini field trips: 3½ hours, one trip each, average group size 5.
Individual field trips (shadowing): 6 hours, one day-long experience, for 35% of clients.
Individual counseling for the summer ranged from 1-10 hours, averaged 3 hours per client.

Work Experience Component

None.

WORK EXPERIENCE PROGRAM

Program Overview

Program duration: 10 weeks, 2 weeks 10 hours each, 8 weeks of 30-40 hours each, total 280 hours. Includes average of 26 hours of career education.

Career Education Component

Clients received 10 hours of career education during the two orientation weeks and received from 13½ to 17½; average of 16 hours, of career education throughout the other 8 weeks of the program. Individual counseling was usually held at the work site, and group discussions at central locations.

Emphasis on survey outcomes:

High emphasis was placed on:
- Self Esteem. Covered in individual counseling.
- Career planning. Addressed in both group discussions and individual counseling.
- Attitudes toward Work. Covered in group discussions and while resolving special problems occurring at work sites (individual counseling).

Medium emphasis:
- Attitudes toward Learning. Infused throughout the program.
- Locus of Control. Infused throughout the program.
- Job Seeking Skills. Covered in group discussions.
- Specific Occupational Knowledge. Covered during field trips.
- General Occupational Knowledge. Covered in group discussions.

Low emphasis:
- Sex Equity. Not addressed in the program.

Estimated time spent by each youth in activity types:
Demonstration/lecture: 10 hours during orientation weeks.
Group discussion: 1½ hours/week, 8 weeks, 12 hours, 1 counselor.
2 hours/week, 8 weeks, 16 hours, 2 counselors.
average = 15 hours total
Individual counseling: average of 1½ hours for each client.
Field trips: 12 hours for 35% of the participants.

Work Experience Component

Method of work site assignments. Work site offerings and participant interests were matched as often as possible. A list of potential work sites, which met these requirements and conformed to child labor laws for the age of the participant, were considered for each participant. Consideration was given to locating a work site that the participant could get to easily, and to what type of work experience, if any, that youth had had in the past. If participants from SPEDY 1977 were interested in a different or more challenging work experience for SPEDY 1978, the opportunity was provided for them.

Special Projects

Special projects were also available for interested participants. The primary purpose in the development of special projects was to provide special training in the area of work experience matched with the interests of the SPEDY participants in occupational areas not readily accessible in the community. Projects included peer counseling experiences with social service agencies, construction or rehabilitation projects which benefitted the community, and projects that linked SPEDY participants to Special Youth Projects.

Test Results

Area M Career Exploration

Number of pre-tests scored	Form A: 144	Form B: 122
Number of post-tests scored	Form A: 96	Form B: 89

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	24	3	27	25	4	29
Females	23	8	31	9	7	16
Total	47	11	58	34	11	45

Priority of outcome and scale names	N	Means and (Std. Dev.) Pre	Post	Mean Gain Raw	in σ's	Difference Sig. ?	Footnotes
High Priority Outcomes							
Work-Related Attit.	58	52.33 (5.21)	51.97 (9.39)	- .36	-.05		
Sense of Control	58	17.40 (4.46)	17.84 (4.18)	.45	.11		
Self Esteem	45	40.98 (6.39)	41.07 (6.79)	.09	.01		
Medium Priority							
Job-Seeking Skills	58	13.26 (2.98)	13.90 (3.40)	.64	.17		
Job-Spec. Occ. Info.	57	22.35 (4.75)	21.33 (4.42)	-1.02	-.22	$p < .10$	
Career Planning	45	60.36 (7.96)	60.53 (10.90)	.18	.02		
Attit. tow. Learning	45	34.31 (5.71)	31.24 (8.33)	-3.07	-.43	$p < .01$	
Gen. Occ. Info.	41	12.02 (3.24)	11.12 (3.56)	- .90	-.29		
Sex Equity	45	22.73 (7.71)	24.47 (7.78)	1.73	.23	$p < .10$	

Test Results

Area M Work Experience

Number of pre-tests scored	Form A: 118	Form B: 118
Number of post-tests scored	Form A: 30	Form B: 29

Number included in analyses presented below. Grand totals include youth who did not give their age and/or sex:

	Form A			Form B		
Sex/Age	14-16	17-21	Tot	14-16	17-21	Tot
Males	2	3	5	2	3	5
Females	9	7	16	8	8	16
Total	11	10	21	10	11	21

Priority of outcome and scale names	N	Means and (Std. Dev.)		Mean Gain		Difference Sig. ?	Footnotes
		Pre	Post	Raw	in σ's		
High Priority Outcomes							
Work-Related Attit.	21	53.33 (5.99)	54.76 (3.87)	1.43	.19		1
Self Esteem	20	40.65 (7.96)	41.85 (6.78)	1.20	.15		
Career Planning	19	61.42 (9.30)	62.21 (8.18)	.79	.06		
Medium Priority							
Sense of Control	21	17.29 (3.59)	17.33 (4.28)	.05	.01		
Job-Seeking Skills	21	14.05 (3.44)	15.14 (3.43)	1.10	.30	$p < .05$	
Job-Spec. Occ. Info.	21	21.62 (5.54)	22.86 (4.98)	1.24	.27	$p < .10$	
Attit. tow. Learning	21	35.48 (5.31)	33.00 (5.99)	-2.48	-.35	$p < .05$	
Gen. Occ. Info.	20	13.35 (3.33)	13.05 (3.41)	- .30	-.11		
Low Priority							
Sex Equity	20	26.50 (7.91)	25.10 (8.75)	-1.40	-.18		

---

[1] Females improved significantly (.30 σ-'s).

New Instrument for Career Education

SPEDY Survey, 1978

Please attach this to completed answer sheets with a loose rubber band.

ODC Area: ______________________________

County: ______________________________

Program name (if there is more than one in your county): ______________

Test date: ______________________________

Were these tests administered: _____ individually or _____ in groups?

Were they read aloud to the youth? ___yes ___no

If you have any comments about the test or if you encountered any problems in administering it, please comment below.

APPENDIX E

Data Resolution Procedures for NICE

Data Resolution Procedures for NICE

Screening of test data before scoring was necessary for three reasons:

1. Some answer sheets had no identification number entered in machine-readable form. Since only those individuals with matchable pre- and post-test scores could be used in the survey, we salvaged as many pre-tests with missing ID numbers as possible.
2. A large number of answer sheets were mis-coded as form A or B. Scoring them according to the form indicated would constitûte use of the wrong scoring key.
3. We were told that some participants could not or would not read the test, but rather answered questions randomly. We wished to eliminate these cases from all analyses.

All answer sheets were hand-checked before the data were read onto computer tape. If codes for age, sex, educational status, and career plans or the identification number was written on the answer sheet but not marked in machine-readable form, the appropriate boxes were blackened If no identification number appeared on the pre-test answer sheet but there was a name indicated, the individual was assigned an ID number. The assigned number was communicated to the ODC, whose staff were asked to have the youth use the same number on the post-test. Post-test answer sheets with no ID number were non-salvageable.

After the answer sheet data were read onto tape, they were passed through a computer program designed to make the most reasonable guess concerning which test form the youth took. Several differences between the two test forms provided clues. Form A has 118 items and Form B 128. The answer sheet allows five response options per item, but the number of real options varies from two to four. On form A, items 33-37 provide only two options, whereas form B items 33-37 have three possible responses. Conversely, form B items 106-110 have two options while those items on form A have four possible answers.

The decision rules for considering a test as form A or Form B were as follows and were executed in this order:

If	Considered Form
1. The indicated test form was neither A nor B	A if ID even (temporarily) B if ID odd (temporarily)
2. Item 129 answered	deleted, not scored
3. Items 119-128 all answered	B
4. Items 119-128 all blank and 118 answered	A
5. Some, but not all, of items 119-128 answered	B (temporarily)
6. Neither (3) nor (4) true.	
a. Form indicated as A and responses to any of items 33-37 out of possible range	deleted, not scored
b. Form indicated as B and responses to any of items 106-110 out of possible range	deleted, not scored
c. N[illegible]r (a) nor (b) true	left as indicated

Next, each response was checked against the possible responses on the item. Where more than three responses on the entire test were out of range, the test was deleted and not scored. Blanks were considered within range, as we did not want to eliminate youth who failed to answer selected items. This procedure was designed to eliminate youth who answered the appropriate number of questions, but who did so randomly (without checking their answers against the number of possible responses and thus answering C, D, or E, where only A and B were given as options). The same procedure probably eliminated some youth who may have passed through the form-checking routine with the incorrect form still indicated. The leeway of three out-of-range responses was allowed on the assumption that this would occasionally occur accidentally to youth who were taking the test seriously and because of a certain rate of error in the optical scanning of answer sheets.

The final screening took place in the test scoring program itself, where the number of unanswered questions on each scale was counted. A youth who left more than 15 percent of a scale's items blank was not scored on that scale, but his or her scores on the other scales were used.

APPENDICES

A New Instrument for Career Education (NICE)--Form A

New Instrument for Career Education (NICE)--Form B

New Instrument for Career Education Scoring Key

B The Development and Content of the New Instrument for Career Education

C New Instrument for Career Education Technical Report

D Instructions for Administering the New Instrument for Career Education

E Data Resolution Procedures for NICE

Appendix A

New Instrument for Career Education (NICE)--Form A

New Instrument for Career Education (NICE)--Form B

New Instrument for Career Education Scoring Key

NICE

New Instrument for Career Education

FORM A

New Educational Directions, Inc.
Crawfordsville, IN 47933

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Crawfordsville, IN 47933

NEW INVENTORY for CAREER EDUCATION

FORM A

PLEASE DO NOT WRITE IN THIS BOOKLET

Turn the pink answer sheet sideways. Your instructor will tell you how to fill out the grid on the answer sheet.

1. Sex:
    0. Male
    1. Female

2. Education:
    0. I have not finished high school and DO NOT plan to.
    1. I have not finished high school but PLAN TO.
    2. I am a high school graduate.
    3. I have had education or formal training beyond high school.

3. Age:
    0. 14 years old
    1. 15 years old
    2. 16 years old
    3. 17 years old
    4. 18 years old
    5. 19 years old
    6. 20 years old
    7. 21 years old

4. Career plans: Do you know what kind of work you want to be doing 10 years from now?
    0. Yes. I know exactly what I want to do.
    1. Not sure, but I have some things in mind.
    2. Not sure, I just know what I do NOT want to do.
    3. No. I have no idea.

Now your instructor will tell you how to fill in your social security number on the grid where it says IDENTIFICATION NUMBER.

After the last number in your social security number, the 0 (zero) should already be filled in. If it is not, please tell your instructor.

IMPORTANT THINGS TO REMEMBER

- The numbers on the answer sheet go ACROSS not down.
- Be sure that the number on each question matches each number on your answer sheet.
- Mark only ONE answer to each question.
- Fill in your answer block completely. A ■ C D E
- This is NOT a timed test.
- When answering the following questions, GIVE YOUR OPINION, NOT WHAT SOMEONE ELSE WOULD SAY.

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Questions 1 - 32:

Choose the answer that BEST says how you FEEL.

If you DISAGREE mark A.
If you DO NOT KNOW mark B.
If you AGREE mark C.

1. I like the idea of earning my own living.
   A. disagree B. don't know C. agree

2. I usually try to get along with people I work with even if I do not like them.
   A. disagree B. don't know C. agree

3. I would not worry about making a mistake on the job if no one would know that I did it.
   A. disagree B. don't know C. agree

4. If I had my choice, I would never work at all.
   A. disagree B. don't know C. agree

5. I would enjoy helping a new worker learn about his or her new job.
   A. disagree B. don't know C. agree

6. I would never work extra hours unless I got extra pay.
   A. disagree B. don't know C. agree

7. If someone is paying me to work, I feel I owe it to them to do my best.
   A. disagree B. don't know C. agree

8. If I have a job I like, it would be silly to take a job with more responsibility.
   A. disagree B. don't know C. agree

9. It would be worth it to me to work several months in a dull job if that is what it takes to get the position I want.
   A. disagree B. don't know C. agree

10. I want a job where I will not be held responsible if something goes wrong.
    A. disagree B. don't know C. agree

11. I would feel good about working really hard to help meet a company deadline.
    A. disagree B. don't know C. agree

12. I believe in doing a good job even if no one is around to notice.
    A. disagree B. don't know C. agree

13. I like being told how I could do my job better.

A. disagree B. don't know C. agree

14. If you act interested in your work, people will think you are crazy.

A. disagree B. don't know C. agree

15. In a job you should make sure you take all of the sick days coming to you.

A. disagree B. don't know C. agree

16. Having a job is worth giving up the other things you could be doing.

A. disagree B. don't know C. agree

17. If your boss is not polite to you, you should not do what he or she says.

A. disagree B. don't know C. agree

18. You owe it to your fellow workers to do a good job.

A. disagree B. don't know C. agree

19. It is important to follow company rules about what you wear at work.

A. disagree B. don't know C. agree

20. When you finish your work, you should wait for your boss to notice that you are ready for more work.

A. disagree B. don't know C. agree

21. If you just do not feel like working you should take the day off.

A. disagree B. don't know C. agree

22. As long as you do a good job while you are there, you should not worry about being late to work.

A. disagree B. don't know C. agree

23. If there is anything you do not like about your job, you should quit.

A. disagree B. don't know C. agree

24. On the job, you should do as little work as you can get by with.

A. disagree B. don't know C. agree

25. If you are going to be late to work you should always call your boss.

A. disagree B. don't know C. agree

26. If you miss a half day of work, you should not bother going to work at all that day.

A. disagree B. don't know C. agree

27. Every job has a few problems that you just have to put up with.

A. disagree B. don't know C. agree

28. Getting ahead in a job is mostly a matter of how well you do your work.

A. disagree B. don't know C. agree

29. If your boss tells you to do something that is usually a good enough reason to do it.

A. disagree B. don't know C. agree

30. Making money is the only good reason for working.

A. disagree B. don't know C. agree

31. Not showing up for work every once in a while is okay.

A. disagree B. don't know C. agree

32. Workers should look for ways to save the company money.

A. disagree B. don't know C. agree

Questions 33 - 57: Mark YES or NO to the following questions.

33. Are you often blamed for things that just are not your fault?

A. yes B. no

34. Most of the time do you find it hard to change a friend's opinion (mind)?

A. yes B. no

35. Most of the time do you find it useless to try to get your own way?

A. yes B. no

36. Do you think that cheering, more than luck, helps a team win?

A. yes B. no

37. Are you the kind of person who believes that planning ahead makes things turn out better?

A. yes B. no

38. Do you believe that most problems will solve themselves if you just do not fool with them?

A. yes B. no

39. Do you believe that you can stop yourself from catching a cold?

A. yes B. no

40. Do you believe that whether or not people like you depends on how you act?

A. yes B. no

41. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?

A. yes B. no

42. Have you felt that when people were mean to you it was usually for no reason at all?

A. yes B. no

43. Do you usually feel that it is almost useless to try in school because most other people are just plain smarter than you are?

A. yes B. no

44. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?

A. yes B. no

45. Most of the time, do you feel that you have little to say about what your friends decide to do?

A. yes B. no

46. Do you feel that no matter what decisions you make, they will not affect your life?

A. yes B. no

47. Do you feel that when good things happen they happen because of hard work?

A. yes B. no

48. Do you feel that when somebody your age wants to be your enemy there is little you can do to change matters?

A. yes B. no

49. Do you feel that you can get friends to do what you want them to do?

A. yes B. no

50. Do you feel that when someone does not like you there is little you can do about it?

A. yes B. no

51. Do you feel that most of the time it does not pay to try hard because things never turn out right anyway?

A. yes B. no

52. Do you feel that if things start out well in the morning, it is going to be a good day no matter what you do?

A. yes B. no

53. Do you feel that it would be impossible to change your boss's mind about anything?

A. yes B. no

54. Do you feel that when you do something wrong there is very little you can do to make it right?

A. yes B. no

55. Do you feel that you have alot of choice in deciding who your friends are?

A. yes B. no

56. Do you feel that when a person your age decides to hit you, there is little you can do to stop him or her?

A. yes B. no

57. Do you feel that one of the best ways to handle most problems is just not think about them?

A. yes B. no

Questions 58 - 77:

Mark TRUE, FALSE, or DON'T KNOW for the following statements.

DURING A JOB INTERVIEW YOU SHOULD . . .

58. talk about your strengths.

A. true B. false C. don't know

59. cover up your weaknesses.

A. true B. false C. don't know

60. keep your answers to questions as short as possible.

A. true B. false C. don't know

61. ask about the pay.

A. true B. false C. don't know

62. make a point of how much you want to work.

A. true B. false C. don't know

63. not ask questions about the company.

A. true B. false C. don't know

64. let the interviewer ask all the questions.

A. true B. false C. don't know

65. All job openings in a town are listed in the local newspaper.

A. true B. false C. don't know

66. Sue sees a want ad in the newspaper that says "1 to 5 years related experience." She fills all the other requirements but she has spent only one summer doing related work. She should apply for the job.

A. true B. false C. don't know

67. The State Employment Office provides free information about job openings and job training programs.

A. true B. false C. don't know

68. Want ads often make jobs more interesting and better paying than they really are.

A. true B. false C. don't know

69. You should not apply for a job unless you know the company has an opening.

A. true B. false C. don't know

70. If a private employment agency finds you a job, you might have to pay them a full month's pay before you even start working.

A. true B. false C. don't know

71. Correct spelling on a job application is only important if you are applying for a job that requires writing.

A. true B. false C. don't know

72. Under "Work Experience" on a job application you should include volunteer work you have done.

A. true B. false C. don't know

73. Once you have turned in a job application you should wait for the employer to get in touch with you before writing, calling, or dropping by again.

A. true B. false C. don't know

74. Nowadays employers do not care about how you dress for a job interview.

A. true B. false C. don't know

75. It is okay to take a friend to a job interview with you.

A. true B. false C. don't know

76. If you are not offered a job at the end of the interview, you might as well forget about the job.

A. true B. false C. don't know

77. If you are offered a job after an interview you have no right to turn down the job.

A. true B. false C. don't know

Question 78: Choose the BEST answer.

78. The purpose of a job interview is for:

A. the employer to check out the applicant
B. the applicant to check out the job
C. both A & B

GO TO NEXT PAGE.

Questions 79 and 80: For each question, choose the BEST answer.

79. Which job could a student do while going to school?

A. sales clerk
B. paper carrier
C. library assistant
D. all of the above

80. Who rarely works at night?

A. firefighter
B. telephone operator
C. electrician
D. airline pilot

Questions 81 - 86:

Mark "A" to the jobs which are better for women.

Mark "B" to the jobs which are better for men.

Mark "C" to those jobs which are equally good for men and women.

81. Nurse

A. better for women
B. better for men
C. either women or men

82. Farm laborer

A. better for women
B. better for men
C. either women or men

83. Plumber

A. better for women
B. better for men
C. either women or men

84. Social studies teacher

A. better for women
B. better for men
C. either women or men

85. Secretary

A. better for women
B. better for men
C. either women or men

86. Physicist

A. better for women
B. better for men
C. either women or men

Questions 87 and 89:

Mark "A" to the jobs which would be GOOD for people who like to HELP OTHER PEOPLE WITH PERSONAL PROBLEMS.

Mark "B" to the others.

87. Priest

A. especially good
B. NOT especially good

88. Probation officer

A. especially good
B. NOT especially good

89. Mail carrier

A. especially good
B. NOT especially good

Questions 90 - 92:

Mark "A" to the jobs which would be GOOD to enter for a person who someday WANTS TO BE SELF-EMPLOYED.

Mark "B" to the others.

90. Truck driver

A. could become self-employed
B. would probably never be self-employed

91. Beautician

A. could become self-employed
B. would probably never be self-employed

92. Cashier

A. could become self-employed
B. would probably never be self-employed

Questions 93 - 95:

For each pair choose the worker who USUALLY has the most JOB SECURITY.

93. A. carpenter
B. auto mechanic

94. A. county sheriff
B. state trooper

95. A. football coach
B. athletic director

Questions 96 and 97:

For each pair, choose the worker who USUALLY has the greatest OPPORTUNITY FOR ADVANCEMENT.

96. A. computer programmer
    B. barber

97. A. flight attendant
    B. manager trainee

Questions 98 - 100:

For each pair, choose the job which requires MORE skills in talking with people.

98. A. receptionist
    B. proofreader

99. A. marriage counselor
    B. dentist

100. A. librarian
     B. salesperson

Questions 101 - 104:

An entry level job is one you can get as soon as you finish the required training. Mark "A" to these jobs.

For other jobs, a person must first get related experience. For example, a school principal must usually work several years as a teacher before becoming a principal. Mark "B" to these jobs.

101. Keypunch operator

A. entry-level job
B. not an entry-level job

102. Nuclear engineer

A. entry-level job
B. not an entry-level job

103. Sales manager

A. entry-level job
B. not an entry-level job

104. Police detective

A. entry-level job
B. not an entry-level job

Questions 105 - 113:

Choose the LEAST amount of training that is USUALLY needed for each of the following jobs.

105. Medical lab technician

A. high school diploma or less
B. up to three years of business, vocational, or technical school after high school
C. a four-year college degree
D. more than four years of college

106. Cab driver

A. high school diploma or less
B. up to three years of business, vocational, or technical school after high school
C. a four-year college degree
D. more than four years of college

107. Grocery check-out clerk

A. high school diploma or less
B. up to three years of business, vocational, or technical school after high school
C. a four-year college degree
D. more than four years of college

108. School psychologist

A. high school diploma or less
B. up to three years of business, vocational, or technical school after high school
C. a four-year college degree
D. more than four years of college

109. Chemical engineer

A. high school diploma or less
B. up to three years of business, vocational, or technical school after high school
C. a four-year college degree
D. more than four years of college

110. Teacher

A. high school diploma or less
B. up to three years of business, vocational, or technical school after high school
C. a four-year college degree
D. more than four years of college

GO TO NEXT PAGE.

111. Waitress or waiter

- A. high school diploma or less
- B. up to three years of business, vocational, or technical school after high school
- C. a four-year college degree
- D. more than four years of college

112. Hotel manager

- A. high school diploma or less
- B. up to three years of business, vocational, or technical school after high school
- C. a four-year college degree
- D. more than four years of college

113. Lawyer

- A. high school diploma or less
- B. up to three years of business, vocational, or technical school after high school
- C. a four-year college degree
- D. more than four years of college

Questions 114 - 118: Mark TRUE, FALSE, or DON'T KNOW to the following statements.

114. To be a truck driver you have to join the Teamster's Union.

A. true B. false C. don't know

115. The Army, Navy, and Air Force have the same enlistment requirements.

A. true B. false C. don't know

116. If you are trained as an electrician in the Army, the Army guarantees you an electrician's job while you are in the service.

A. true B. false C. don't know

117. If you join the Army, you usually have to stay in for at LEAST 3 years.

A. true B. false C. don't know

118. If you join a union you are sure to get a job.

A. true B. false C. don't know

NICE

New Instrument for Career Education

FORM B

New Educational Directions, Inc.
Crawfordsville, IN 47933

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Crawfordsville, IN 47933

NEW INVENTORY for CAREER EDUCATION

FORM B

PLEASE DO NOT WRITE IN THIS BOOKLET

Turn the pink answer sheet sideways. Your instructor will tell you how to fill out the grid on the answer sheet.

1. Sex:
    0. Male
    1. Female

2. Education:
    0. I have not finished high school and DO NOT plan to.
    1. I have not finished high school but PLAN TO.
    2. I am a high school graduate.
    3. I have had education or formal training beyond high school.

3. Age:
    0. 14 years old
    1. 15 years old
    2. 16 years old
    3. 17 years old
    4. 18 years old
    5. 19 years old
    6. 20 years old
    7. 21 years old

4. Career plans: Do you know what kind of work you want to be doing 10 years from now?
    0. Yes. I know exactly what I want to do.
    1. Not sure, but I have some things in mind.
    2. Not sure, I just know what I do NOT want to do.
    3. No. I have no idea.

Now your instructor will tell you how to fill in your social security number on the grid where it says IDENTIFICATION NUMBER.

After the last number in your social security number, the 1 (one) should already be filled in. If it is not, please tell your instructor.

IMPORTANT THINGS TO REMEMBER

* The numbers on the answer sheet go ACROSS not down.

* Be sure that the number on each question matches each number on your answer sheet.

* Mark only ONE answer to each question.

* Fill in your answer block completely. A ■ C D E

* This is NOT a timed test.

* When answering the following questions, GIVE YOUR OPINION, NOT WHAT SOMEONE ELSE WOULD SAY.

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Questions 1 - 22: Mark the answer that BEST says how you FEEL.
Mark "A" if you strongly disagree.
Mark "B" if you disagree.
Mark "C" is you agree.
Mark "D" if you strongly agree.

1. I have more strong points than weak points.
A. strongly disagree B. disagree C. agree D. strongly agree

2. It hurts my feelings when people criticize my work.
A. strongly disagree B. disagree C. agree D. strongly agree

3. I wish I were someone else.
A. strongly disagree B. disagree C. agree D. strongly agree

4. Nobody cares what happens to me.
A. strongly disagree B. disagree C. agree D. strongly agree

5. I get along well with other people.
A. strongly disagree B. disagree C. agree D. strongly agree

6. I expect to be a success in life.
A. strongly disagree B. disagree C. agree D. strongly agree

7. I do not like to try new things because I would probably not do well.
A. strongly disagree B. disagree C. agree D. strongly agree

8. I am not afraid to stand up for things I believe in.
A. strongly disagree B. disagree C. agree D. strongly agree

9. I feel uncomfortable when people compliment me.
A. strongly disagree B. disagree C. agree D. strongly agree

10. I am not as important as most people.
A. strongly disagree B. disagree C. agree D. strongly agree

11. Everyone else seems much more confident than I.
A. strongly disagree B. disagree C. agree D. strongly agree

12. I have alot to offer others.
A. strongly disagree B. disagree C. agree D. strongly agree

13. My life is really worth living.
A. strongly disagree B. disagree C. agree D. strongly agree

14. I am good at the things that really count in life.

A. strongly disagree B. disagree C. agree D. strongly agree

15. I do not usually volunteer to do things because other people can do them much better than I can.

A. strongly disagree B. disagree C. agree D. strongly agree

16. I can deal with almost any situation.

A. strongly disagree B. disagree C. agree D. strongly agree

17. I am fun to be with.

A. strongly disagree B. disagree C. agree D. strongly agree

18. I do not see why anyone would want to hire me.

A. strongly disagree B. disagree C. agree D. strongly agree

19. I do some things better than anyone else I know.

A. strongly disagree B. disagree C. agree D. strongly agree

20. I do not like to talk about myself.

A. strongly disagree B. disagree C. agree D. strongly agree

21. I am an interesting person.

A. strongly disagree B. disagree C. agree D. strongly agree

22. I have nothing to be proud of.

A. strongly disagree B. disagree C. agree D. strongly agree

Question 23: Mark the BEST answer.

23. If you have a job that you do not enjoy, you should:

A. quit the job right away
B. keep the job but look for another one
C. keep the job and stick to it

Questions 24 - 31: Mark the answer that BEST says what you THINK.

24. When your mood changes, do you ask yourself why?

A. yes, a lot B. yes, some C. no

25. Have you thought about what you want in a job?

A. yes, alot B. yes, some C. no

26. Do you ever ask other people about their work?

A. yes, alot B. yes, some C. no

27. When you see people on their jobs, do you think about what it would be like to do that kind of work?

A. yes, alot B. yes, some C. no

28. Do you ever do things you have never done before just to find out more about yourself?

A. yes, alot B. yes, some C. no

29. During the past week have you thought about what you want to be doing five years from now?

A. yes, alot B. yes, some C. no

30. Have you thought about what kinds of jobs you would be good at?

A. yes, alot B. yes, some C. no

31. Do you have a good idea of what you want out of life?

A. yes, alot B. yes, some C. no

Questions 32 - 37:

Mark "A" to the jobs which are better for women.

Mark "B" to the jobs which are better for men.

Mark "C" to those jobs which are equally good for men and women.

32. Nurse

A. better for women
B. better for men
C. either women or men

33. Farm laborer

A. better for women
B. better for men
C. either women or men

34. Plumber

A. better for women
B. better for men
C. either women or men

35. Social studies teacher

A. better for women
B. better for men
C. either women or men

GO TO NEXT PAGE.

36. Secretary

A. better for women
B. better for men
C. either women or men

37. Physicist

A. better for women
B. better for men
C. either women or men

Questions 38 - 43: Mark the answer that BEST says what you THINK.

38. If you were the opposite sex, would you think about the same kinds of jobs as you are thinking about now?

A. yes B. no C. not sure

39. Would you take up a new hobby or do volunteer work just to see if you would like a career in that field?

A. yes B. no C. not sure

40. Does a woman have to choose between raising a family and having a career?

A. yes B. no C. not sure

41. Is it more important for a male to plan a career than it is for a female?

A. yes B. no C. not sure

42. Do you have a reason for most of the things you do?

A. yes B. no C. not sure

43. Do you enjoy doing some things that most people do not like to do?

A. yes B. no C. not sure

Questions 44 - 47: Mark the BEST answer.

44. What is more important to consider when you choose a long-range career goal?

A. what you already know how to do
B. what you could learn how to do

45. What is more important to consider if you are trying to decide whether a certain career is for you?

A. whether you think the work is important
B. whether your friends think it is a good idea

46. What is more important to consider when you decide on a career?

A. your sex
B. your grades in school

47. What is the best way to decide which courses to take in school?

A. find out which courses are easiest to get a good grade in
B. find out who is teaching the courses
C. find out what you will need to know to get the job you want
D. let your counselor decide

Questions 48 - 70: Mark the answer that BEST says what you THINK.

48. If a good friend or relative thinks that I should go into a certain career, I would follow their advice.

A. disagree B. maybe, maybe not C. agree

49. There are a lot of career opportunities that I have never even heard of.

A. disagree B. not sure C. agree

50. I could be happy and successful in at least ten different occupations.

A. disagree B. don't know C. agree

51. I would never decide on a career without first talking to someone in that field.

A. disagree B. don't know C. agree

52. When I want a job I will take whatever looks best at the time, so thinking about careers is not important for me.

A. disagree B. don't know C. agree

53. I have very little choice about the kind of work I will go into.

A. disagree B. don't know C. agree

54. People who get good jobs are just lucky.

A. disagree B. don't know C. agree

55. There are some jobs that nearly everyone would like to have.

A. disagree B. don't know C. agree

56. Choosing a career is one of the most important decisions a person ever makes.

A. disagree B. don't know C. agree

57. The earlier you start thinking about your career, the better.

A. disagree B. don't know C. agree

58. The kind of work you go into will affect almost every aspect of your life.

A. disagree B. don't know C. agree

59. Planning your career in advance makes it easier to get a good job later on.

A. disagree B. don't know C. agree

60. Your occupation has alot to do with how you feel about yourself.

A. disagree B. don't know C. agree

61. The only way to find out whether you would like a certain kind of work is to get a job in the field and see how you like it.

A. disagree B. don't know C. agree

62. Talking with people who are different from you is one good way to learn more about yourself.

A. disagree B. don't know C. agree

63. Your occupation has alot to do with what other people think about you.

A. disagree B. don't know C. agree

64. Knowing someone who does not like their job is a good enough reason to stay away from that line of work yourself.

A. disagree B. don't know C. agree

65. It will not do you any good to plan your career because you never know what kind of jobs there will be in another few years.

A. disagree B. don't know C. agree

66. If you are 40 years old it is too late to change your occupation.

A. disagree B. don't know C. agree

67. If you think you would like a certain career you should read all you can about it.

A. disagree B. don't know C. agree

68. The time to decide what kind of work you want to do is after you are out of school.

A. disagree B. don't know C. agree

69. If you have a choice of jobs for the summer, you should think about what you want to be doing in another five years before you make your decision.

A. disagree B. don't know C. agree

70. Sometimes it is a good idea to take a low-paying job just because it will give you a chance to get a really good job later on.

A. disagree B. don't know C. agree

Questions 71 - 75: Mark the answer that BEST says what you THINK.

71. I do not care what kind of job I get as long as it pays well.

A. disagree B. no opinion C. agree

72. I have some strengths that will be useful in a job.

A. disagree B. no opinion C. agree

73. I have to decide for myself what kinds of jobs are best for me.

A. disagree B. no opinion C. agree

74. It seems that I am always making the wrong decisions.

A. disagree B. no opinion C. agree

75. I do not trust myself to make big decisions that will affect my life.

A. disagree B. no opinion C. agree

Questions 76 - 105: Mark the answer that BEST says how you FEEL.

76. Within the next 10 years I plan to learn alot of things.

A. disagree B. no opinion C. agree

77. I like to keep up with what is going on in the world.

A. disagree B. no opinion C. agree

78. Being able to use good grammar is important to me.

A. disagree B. no opinion C. agree

79. I have learned all that I need to know to get along in life.

A. disagree B. no opinion C. agree

80. My high school courses will help me in a job.

A. disagree B. no opinion C. agree

81. I can think of at least 10 things I want to learn how to do.

A. disagree B. no opinion C. agree

82. Even working full time, I would be willing to go to school nights to learn more about my line of work.

A. disagree B. no opinion C. agree

83. Men should take their jobs more seriously than women.

A. disagree B. no opinion C. agree

84. A husband should make more money than his wife.

A. disagree B. no opinion C. agree

85. A high school diploma is more important for males than for females.
A. disagree B. no opinion C. agree

86. People who enjoy learning are strange.
A. disagree B. no opinion C. agree

87. A husband should decide for his wife whether she should work or not.
A. disagree B. no opinion C. agree

88. Women should be laid off before men.
A. disagree B. no opinion C. agree

89. In most any job it is important to be able to read and write.
A. disagree B. no opinion C. agree

90. A male can do more jobs than a female.
A. disagree B. no opinion C. agree

91. Learning can be difficult and fun at the same time.
A. disagree B. no opinion C. agree

92. School is more trouble than it is worth.
A. disagree B. no opinion C. agree

93. Math is worth knowing no matter what line of work you get into.
A. disagree B. no opinion C. agree

94. The most important reason to stay in school is for the social life.
A. disagree B. no opinion C. agree

95. Reading magazines and newspapers is a waste of time.
A. disagree B. no opinion C. agree

96. Being fired is more of a problem for a male than it is for a female.
A. disagree B. no opinion C. agree

97. Men are better workers than women.
A. disagree B. no opinion C. agree

98. Women should choose jobs that do not take alot of training.
A. disagree B. no opinion C. agree

99. Once you get good at a job, you do not have to learn any more about your line of work.
A. disagree B. no opinion C. agree

100. You should learn just enough to get by.
A. disagree B. no opinion C. agree

101. After you are out of school, you should not go out of your way to learn anything unless you get paid for it.

A. disagree B. no opinion C. agree

102. If you ask questions at work people will think you are stupid.

A. disagree B. no opinion C. agree

103. You can learn alot by watching experienced people you work with.

A. disagree B. no opinion C. agree

104. One good reason for working is that it gives you a chance to learn.

A. disagree B. no opinion C. agree

105. The only thing you get out of learning more about your job is more work.

A. disagree B. no opinion C. agree

Questions 106 - 110:

John and Mary are both salespersons in shoe stores. John makes more money than Mary. For each item, mark "A" if this is a good reason for John's higher pay. Mark "B" if it is not a good reason or against the law (illegal).

106. John has been selling shoes for several years and Mary just started a few months ago.

A. a good reason for higher pay B. not a good reason

107. John has a family to support and Mary works only because she enjoys it.

A. a good reason for higher pay B. not a good reason

108. John lives in an area where the cost of living is higher.

A. a good reason for higher pay B. not a good reason

109. John sells more shoes than Mary.

A. a good reason for higher pay B. not a good reason

110. John has more responsibilities than Mary.

A. a good reason for higher pay B. not a good reason

Questions 111 - 121:

Answer TRUE, FALSE, or DON'T KNOW to the following statements.

111. The government protects the rights of employees to work in a safe place.

A. true B. false C. don't know

112. People who graduate from college can always find a job.

A. true B. false C. don't know

113. Only good students can expect to have successful careers.

A. true B. false C. don't know

114. You can forget about going to college unless your parents make alot of money.

A. true B. false C. don't know

115. For most jobs, social security payments are taken out of your paycheck even if you do not plan to collect social security when you are older.

A. true B. false C. don't know

116. There is no reason to file an income tax return if you earn less than $1,000 a year.

A. true B. false C. don't know

117. It does not cost anything to join a union.

A. true B. false C. don't know

118. If you join a union you are sure to get a job.

A. true B. false C. don't know

119. If you are 17 years old you need your parent's permission to join the military.

A. true B. false C. don't know

120. When you join the military you don't have to go through basic training if you are going to a military technical school.

A. true B. false C. don't know

121. Anyone can join the military if they are between 17 and 27 years old.

A. true B. false C. don't know

Questions 122 - 128: Mark the BEST answer.

122. Which is usually a fringe benefit?

A. health insurance
B. automobile insurance
C. both A & B
D. none of the above

123. You would probably get better fringe benefits working for a:

A. small business B. large business C. self-owned business

124. Which one of the following reasons is used most for "firing" an employee?

A. lack of needed skills
B. poor work habits
C. poor dress habits
D. membership in a labor union

125. What is the best way for a worker to move from a technical job to a professional job?

A. become involved in a union
B. talk to an employment agency
C. take night courses
D. work very hard to impress the boss

126. If you get paid by the amount of time you spend at work, you are paid a:

A. salary B. piece rate C. commission D. wage

127. If you are paid the same amount every month, you are paid a:

A. salary B. piece rate C. commission D. wage

128. If you get paid more for selling more, you are paid a:

A. salary B. piece rate C. commission D. wage

NED NEW EDUCATIONAL DIRECTIONS, INC.
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New Instrument for Career Education
Scoring Key

The table below shows the number of points awarded for each response to each item.

FORM A

Note: Items 81-86 are not scored

Work Related Attitudes
No. of items: 32
Maximum score: 64

Item	0 (A)	1 (B)	2 (C)	3 (D)
1	0	1	2	
2	0	1	2	
3	2	1	0	
4	2	1	0	
5	0	1	2	
6	2	1	0	
7	0	1	2	
8	2	1	0	
9	0	1	2	
10	2	1	0	
11	0	1	2	
12	0	1	2	
13	0	1	2	
14	2	1	0	
15	2	1	0	
16	0	1	2	
17	2	1	0	
18	0	1	2	
19	0	1	2	
20	2	1	0	
21	2	1	0	
22	2	1	0	
23	2	1	0	
24	2	1	0	
25	0	1	2	
26	2	1	0	
27	0	1	2	
28	0	1	2	
29	0	1	2	
30	2	1	0	
31	2	1	0	
32	0	1	2	

Locus of Control
No. if items: 25
Maximum score: 25

Item	0 (A)	1 (B)	2 (C)	3 (D)
33	0	1		
34	0	1		
35	0	1		
36	1	0		
37	1	0		
38	0	1		
39	1	0		
40	1	0		
41	0	1		
42	0	1		
43	0	1		
44	1	0		
45	0	1		
46	0	1		
47	1	0		
48	0	1		
49	1	0		
50	0	1		
51	0	1		
52	0	1		
53	0	1		
54	0	1		
55	1	0		
56	0	1		
57	0	1		

Job-Seeking Skills
No. of items: 21
Maximum score: 21

Item	0 (A)	1 (B)	2 (C)	3 (D)
58	1	0	0	
59	0	1	0	
60	0	1	0	
61	1	0	0	
62	1	0	0	
63	0	1	0	
64	0	1	0	
65	0	1	0	
66	1	0	0	
67	1	0	0	
68	1	0	0	
69	0	1	0	
70	1	0	0	
71	0	1	0	
72	1	0	0	
73	0	1	0	
74	0	1	0	

Item	0 (A)	1 (B)	2 (C)	3 (D)
75	0	1	0	
76	0	1	0	
77	0	1	0	
78	0	0	1	

Job Specific Occupational Information
No. of items: 34
Maximum score: 34

79	0	0	0	1
80	0	0	1	0
87	1	0		
88	1	0		
89	0	1		
90	1	0		
91	1	0		
92	0	1		
93	0	1		
94	0	1		
95	0	1		
96	1	0		
97	0	1		
98	1	0		
99	1	0		
100	0	1		
101	1	0		
102	1	0		
103	0	1		
104	0	1		
105	0	1	0	0
106	1	0	0	0
107	1	0	0	0
108	0	0	0	1
109	0	0	1	0
110	0	0	1	0
111	1	0	0	0
112	0	1	0	0
113	0	0	0	1
114	0	1	0	
115	0	1	0	
116	0	1	0	
117	1	0	0	
118	0	1	0	

FORM B
Note: Item 108 is not scored

Self Esteem
No. of items: 22
Maximum score: 66

Item	0 (A)	1 (B)	2 (C)	3 (D)
1	0	1	2	3
2	3	2	1	0
3	3	2	1	0
4	3	2	1	0
5	0	1	2	3
6	0	1	2	3
7	3	2	1	0
8	0	1	2	3
9	3	2	1	0
10	3	2	1	0
11	3	2	1	0
12	0	1	2	3
13	0	1	2	3
14	0	1	2	3
15	3	2	1	0
16	0	1	2	3
17	0	1	2	3
18	3	2	1	0
19	0	1	2	3
20	3	2	1	0
21	0	1	2	3
22	3	2	1	0

Career Decision Making Skills
No. of items. 44
Maximum score: 88

	0 (A)	1 (B)	2 (C)	3 (D)
23	0	2	0	
24	2	1	0	
25	2	1	0	
26	2	1	0	
27	2	1	0	
28	2	1	0	
29	2	1	0	
30	2	1	0	
31	2	1	0	
39	2	0	1	
42	2	0	0	
43	2	0	1	
44	0	2		
45	2	0		
46	0	2		
47	0	0	2	0
48	0	2	0	
49	0	1	2	
50	0	1	2	
51	0	1	2	
52	2	1	0	
53	2	1	0	
54	2	1	0	
55	2	1	0	
56	0	1	2	
57	0	1	2	
58	0	1	2	
59	0	1	2	
60	0	1	2	
61	2	1	0	
62	0	1	2	
63	0	1	2	
64	2	1	0	
65	2	1	0	
66	2	1	0	
67	0	1	2	
68	2	1	0	
69	0	1	2	
70	0	1	2	
71	2	1	0	
72	0	1	2	
73	0	1	2	
74	2	1	0	
75	2	1	0	

Attitudes Toward Learning
No. of items: 21
Maximum score: 42

	0 (A)	1 (B)	2 (C)	3 (D)
76	0	1		2
77	0	1		2
78	0	1		2
79	2	1		0
80	0	1		2

Item	0 (A)	1 (B)	2 (C)	3 (D)
81	0	1	2	
82	0	1	2	
86	2	1	0	
89	0	1	2	
91	0	1	2	
92	2	1	0	
93	0	1	2	
94	2	1	0	
95	2	1	0	
99	2	1	0	
100	2	1	0	
101	2	1	0	
102	2	1	0	
103	0	1	2	
104	0	1	2	
105	2	1	0	

	0 (A)	1 (B)	2 (C)
37	0	0	2
38	2	0	1
40	0	2	1
41	0	2	1
46	0	2	
83	2	1	0
84	2	1	0
85	2	1	0
87	2	1	0
88	2	1	0
90	2	1	0
96	2	1	0
97	2	1	0
98	2	1	0
107	0	2	

General Occupational Information
No. of items: 22
Maximum score: 22

106	1	0		
107	0	1		
109	1	0		
110	1	0		
111	1	0	0	
112	0	1	0	
113	0	1	0	
114	0	1	0	
115	1	0	0	
116	0	1	0	
117	0	1	0	
118	0	1	0	
119	1	0	0	
120	0	1	0	
121	0	1	0	
122	1	0	0	0
123	0	1	0	
124	0	1	0	0
125	0	0	1	0
126	0	0	0	1
127	1	0	0	0
128	0	0	1	0

Sex Equity
No. of items. 20
Maximum score: 40

32	0	0	2
33	0	0	2
34	0	0	2
35	0	0	2
36	0	0	2

Appendix B

The Development and Content of the New Instrument for Career Education

NED NEW EDUCATIONAL DIRECTIONS, INC.
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The Development and Content of the New Instrument for Career Education

July, 1978

The nine scales of the New Instrument for Career Education (NICE) were developed specifically for the 1978 survey of the SPEDY programs in Indiana's Balance-of-State. The scales appear on two forms, as shown below:

Form A	Form B
Work-Related Attitudes	Self Esteem
Sense (Locus) of Control	Career Planning
Job-Seeking Skills	Attitudes toward Learning
Job-Specific Occupational Information	General Occupational Information
	Sex Equity

Approach to Instrument Development

The test battery is based on the philosophy of career education expressed by the Office of Career Education, USOE, in publications such as *A Primer for Career Education* (Hoyt, 1977). Included in the *Primer* are nine learner outcome goals for career education. NED's "An Interpretation of USOE's Learner Outcome Goals for Career Education," (1978) divides these goals into subgoals and identifies some of the more specific behaviors, skills, attitudes, and knowledge units comprising each. The nine scales of NICE correspond to subgoals, not to the nine goals set forth by USOE.

The scales were designed to measure as many of the specific attributes defined by these subgoals as possible. The general approach to instrument development was one of wideband domain sampling and most of the domains are broad, consisting of a number of skills, attitudes, or facts which may not be closely related in the statistical sense. This means that the items in any given scale may appear quite different and the (statistical) internal consistency should be rather low. In contrast, the items on a narrowband instrument would appear more redundant and its measured internal consistency would be high.

The measures were designed to maximize content validity. That is, proposed items were scrutinized in terms of their apparent relevance to the domain, their potential sensitivity to instruction, and whether ambiguities were evident. Draft scales were examined according to how thoroughly the items covered the domain. Other considerations in instrument development were:

1. The need to minimize testing time while evaluating the SPEDY programs' effects on a number of youth outcomes.
2. The limited reading and writing skills of some youth, precluding questions requiring written responses and requiring that the amount and difficulty of the reading involved in taking the tests be minimized.
3. The 14-21 age range of SPEDY participants and the diversity of their educational and work backgrounds. This meant, for example, that test items could not assume that the respondent is in school, or that he or she has held a paying job before.

As discussed below, the Sense (Locus) of Control scale is a modification of a published and validated instrument. The other scales were developed by the NED staff, who relied heavily on items previously developed and used by NED in *Viewpoints on Work* and in the various versions and levels of the *Career Orientation Battery*.

Intended Uses of the Instruments

The instruments were designed as *program* evaluation tools. *Use of the results for individual diagnosis is strongly discouraged,* not only because the information about the measures' psychometric properties needed for meaningful interpretation of individual scores is not available, but also because the tests were not designed to provide information about narrowly-defined attributes needed for identifying an individual's specific strengths and weaknesses. However, the test scoring program includes a section indicating the percentage of the group who gave each response to each question. Program designers and instructors may find this useful in assessing the needs of their youth as a *group*.

Reading Level

The reading level of the scales was estimated with the Harris-Jacobson Readability Formula 2, which is based on the number of words per sentence and the frequency of uncommon words in the text. The levels ranged from low second grade (Self Esteem) to fourth grade (Sense of Control and Work-Related Attitudes). This estimate strikes us as rather low, but it does suggest that our goal of a reading level of sixth grade or lower was achieved. Since they were designed partially as vocabulary tests, the two occupational information scales were not subjected to this procedure.

Below is a description of each scale and the attributes it was designed to measure followed by a description of the test scoring program output.

Work-Related Attitudes

This scale consists of 32 statements with the response options of disagree, don't know, and agree. One point is awarded for a "don't know" response and two for the preferred answer (either disagree or agree), making the maximum possible score 64.

The items reflect attitudes which presumably underly good work habits. Specifically, the items address:

* Desire to work
* Desire to get along with others in the work setting
* Acceptance of supervision and work regulations
* Sense of responsibility to employer and co-workers
* Dependability with respect to punctuality and regular attendance at work
* Inclination to perform well without close supervision
* Concern for quality work, desire to do her/his best
* Desire to learn and to advance in a job

The Work-Related Attitudes scale is a modification of *Viewpoints on Work,* developed on the basis of employers' opinions of the worker traits, other than technical skills, associated with success in securing, maintaining, and advancing in a job. A draft version of VOW was reviewed by forty-five members of four advisory councils for vocational-technical education in Indiana and revised on the basis of their suggestions.

Sense (Locus) of Control

This 25-item scale is a modification of the 40-item Nowicki-Strickland Internal-External Scale (*Journal of Consulting and Clinical Psychology*; 1973, Vol. 40, 148-154).

A high score suggests that the individual has a sense of control over her or his own destiny and environment and a low score suggests a sense of powerlessness a belief that the person is controlled largely by society, other individuals, chance, and fate. We would expect a person with a strong sense of control to be inclined to make career decisions, to take action toward implementing them, and to engage in other self-improvement activities because she or he would expect these efforts to pay off. A person with a weak sense of control, on the other hand, would be futilistic--less inclined to take action because he or she would have little reason to believe it would make a difference.

The modifications of the Nowicki-Strickland scale consisted primarily of eliminating items pertaining to the role of student or to family relationships, rewording several items about parents to make them applicable to employment settings, and changing outmoded or inappropriate words (such as "other children" to "other people"). The yes-no response scale was retained from Nowicki and Strickland's instrument.

Job-Seeking Skills

This 21-item scale measures knowledge about job-seeking. Eleven of the items concern employment interviews--their purpose, the importance of appropriate dress, and what to talk about during them. The other items address sources for locating potential employers, interpreting want ads, completing job applications, and the desirability of following up on initial contacts with potential employers.

The response options for all but one of the items are true, false, and don't know. Credit is given only for the correct response (either true or false); the "don't know" option was included only to minimize guessing.

Job-Specific Occupational Information

This 34-item scale is designed to measure knowledge of particular occupations in terms of the interests, values, and skills of workers in the occupations and the working conditions, educational requirements and advancement potential of various jobs. White collar and blue collar occupations are represented about equally, as are jobs requiring various amounts of training or education.

The scale is best suited for evaluating programs designed to develop an awareness of a wide variety of occupations. Even then, it samples a very small percentage of all relevant facts about all possible occupations. The test is not expected to be sensitive to the effects of programs designed for indepth investigation of a limited range of career opportunities of interest to the learner.

The scale's items are presented in a variety of multiple-choice formats with credit given only for the correct response.

Items 81-86 were mistakenly printed in the Form A test booklets. However, these items are disregarded by the scoring program.

Self Esteem

The self esteem scale consists of 22 statements with four response options from strongly disagree to strongly agree. Three points are awarded for the preferred response (either strongly agree or strongly disagree) and 2, 1, or 0 points for the others.

The scale is designed to measure the degree to which the individual perceives him/herself as a valuable person. Individuals with high scores describe themselves as competent, confident, and worthy of high regard from themselves and others. They report believing that their strengths outweigh their weaknesses and that their futures are promising.

Career Planning

This scale is based on a model which views the components of career decision-making as:

1. Attitudinal preparation to make a decision.
2. Self appraisal of interests, values, aptitudes, skills.
3. Search of information about career options.
4. Evaluation of various career options against personal preferences and characteristics, placing the greatest weight on factors of highest personal importance.
5. Tentative career choice.

These components are not necessarily consecutive processes and are often simultaneous. Also, the model is a closed system; the cycle may be repeated a number of times throughout a lifetime both before and after the individual begins educational preparation for a career or enters the labor market.

The scale's 44 items address the following:

- Recognition of the importance of one's career in his/her life (4 items)
- Recognition that a variety of career options are available (3 items)
- Appreciation of the value of career planning (6 items)
- Appreciation of the importance of taking personal responsibility for career decisions and confidence in own ability to make sound decisions (4 items)
- Awareness of self-appraisal and career information-seeking techniques (3 items)
- Involvement in self-appraisal, career information-seeking, and career option evaluation (14 items)
- Inclination to consider long-term impact of immediate career decisions (3 items)
- Recognition of (relatively) irrelevant or short-sighted criteria used by some in evaluating career options (5 items)
- Belief in the reversibility of prior career decisions (2 items)

Thirty-eight of the scale's 44 items employ three-point response scales where two points are awarded for the preferred response and one for the neutral response. The remaining six items have only one correct response, for which two points are awarded.

Attitudes toward Learning

This scale consists of 21 statements with the response options of agree, disagree, and no opinion; one point is awarded for "no opinion" and two for the preferred response.

Unlike most tests of this type, the Attitudes toward Learning scale is not concerned with how much the individual likes school or feels comfortable in the student role. Six items address perceived relevance of school learning. The remaining items deal with attitudes toward learning in general (7 items), keeping abreast with current events (2 items), and learning in the employment setting (6 items).

General Occupational Information

This is a 22-item multiple-choice test of career knowledge which is not specific to particular occupations. The items concern such things as income taxes, fringe benefits, labor unions, financial assistance for college, the reasons for different amounts of pay, and difference between various methods of payments.

After printing, it was noted that item 108 is ambiguous. The scoring program disregards this item.

Sex Equity

These twenty items are imbedded in the other four scales of Form B, with item formats and response options varying so that sex equity items resemble other items surrounding them.

The scale is designed to measure attitudes concerning the degree to which one's gender should influence his or her career. Specific items address whether the individual allows his or her sex to influence his/her career decisions and attitudes toward: men entering female-stereotyped occupations and vice versa; whether a man's career is a more serious matter than a woman's; the desirability of women working outside of the home, and; whether men should be given an advantage in the employment market.

Test Scoring Program Output

Test results are provided in three forms for each group of youth.

Part I indicates the *raw* scores of each youth on each scale. Once again, interpretation of these scores is strongly discouraged.

Even though NICE is not intended as a timed test, it is common in any group testing situation for some individuals to fail to complete a test in the allotted time. Therefore, the scoring program counts the number of items omitted on each scale. If a person omits more than fifteen percent of the questions, that scale is not scored and an asterick appears in place of his or her score on that test scale.

Part II shows summary statistics for the group: means (average scores), ranges (lowest and highest scores), standard deviations, sums, sums of squares, and the number of individuals included in summary statistics (youth with astericks in place of scores are not included in these calculations).

Part III indicates the percentage of the group who answered A, B, C, and D and who omitted each test item. By referring to the test booklets and the scoring key, one can use this information to determine how the group responded to each of the test items, which may suggest specific facts and attitudes worthy of more (or less) instructional emphasis. The percentages should add up to about 100 for each question, but due to rounding error they will be off a little in some cases. These data include youth who did not complete the scales and who are excluded from Part II results.

APPENDIX C

New Instrument for Career Education Technical Report

New Instrument for Career Education

Technical Report

September, 1978

This report supplements the NED publication, "The Development and Content of the New Instrument for Career Education," which describes the test's nine scales.

The scales appear on two forms, as shown below:

Form A	Form B
Work-Related Attitudes	Self Esteem
Sense of Control	Career Planning
Job-Seeking Skills	Attitudes Toward Learning
Job-Specific Occupational Information	General Occupational Information
	Sex Equity

Samples: not nationally representative

The data reported herein were collected as part of NED's survey of the 1978 SPEDY programs in Indiana's balance-of-state. The balance-of-state consists of 68 counties with populations of less than 100,000. Thus, the sample represents only youth from Indiana's smaller cities and rural areas. SPEDY is a CETA Title III education/work program lasting an average of ten weeks each summer. Only 14 to 21 year-olds from economically disadvantaged families (maximum family income of $6770 for a family of four) are eligible.

The program is voluntary and participants are paid minimum wage for both the education and work components. SPEDY personnel consider their younger participants fairly representative of the economically disadvantaged youth in their communities; this is especially true of youth under 16, who are excluded from many unsubsidized jobs by child labor laws. However, youth past high school age fall into two categories. About one-fourth are enrolled in post-secondary educational programs during the academic year and the other three-quarters are unemployed before joining SPEDY. Out-of-school youth who are steadily employed therefore are not included in the sample.

About 89% of SPEDY participants in Indiana's balance-of-state are white and 11% are black.

Testing conditions: not controlled

Logistics prevented using trained test administrators and varying circumstances and facilities in the 68 counties prevented NED from being overly prescriptive about testing procedures. SPEDY personnel, the majority of whom are school counselors or teachers, administered the tests with written instructions provided by NED.

Some tests were read aloud to the youth, some were not. Most were administered in groups, but some were administered individually. Test administrators were asked to provide a relaxed, yet orderly atmosphere. Rest breaks were allowed. The test was not timed, but normally took about forty-five minutes.

Elimination of cases before scoring

The nine scales of NICE appear on two different test forms. All available SPEDY participants enrolled at the time of testing in early June were tested, with half of them receiving Form A and half Form B. Test assignments were based on participants' social security numbers and were effectively random.

The same standard machine-scorable answer sheets were used for both forms. They were precoded as A or B by NED and inserted into the test booklets, but a large number of youth erased or changed the form code. This unanticipated problem led to the development of a series of computer programs described in "Data Resolution Procedures for NICE". The first of these programs deciphers with reasonable confidence which form each youth took.

The number of response options on the various test items varies from two to four, but the standard answer sheet has space for five options per item. Each response was checked against the possible responses for the form the youth apparently took; if more than three answers were out of range, the test was eliminated before scoring. This procedure eliminated tests whose form code was still incorrect after the first check and also tests which had been completed in a random fashion. Less than eight percent of the 4,810 tests received by NED were eliminated before scoring.

The scoring program counts the number of items left blank on each scale and indicates the score on that scale as missing data if more than 15 percent of the items were not answered. The other scales on the same test are not affected by failure to complete one of the scales. This feature was included because our experience is that untimed tests often become timed tests when administered in schools, but we found this problem to be negligible with SPEDY. The General Occupational Information scale had the largest incidence of missing data with only two percent.

Tables 1-6 presented below include individuals with missing scores on some of the scales. Tables 7-15 show the actual total N for each scale (with missing scores exluded), but exact N's for age and sex subgroups are not presented here for each scale.

Tables 7-15

Tables 7-15 present psychometric data for each of the nine scales. *Means and Standard Deviations* are shown for each age-sex subgroup.

Subgroup means are also presented graphically. All tests administered at pretesting for the SPEDY survey were used for these analyses. Both forms of the test began with questions regarding age and sex, although these questions were not always answered. Youth who left these items blank were included in analyses based on the group as a whole, but excluded from those requiring the missing information.

Age and Sex Differences. Two-way analyses of variance were performed for each scale; the regression approach was used to correct for unequal cell frequencies.

The general trend was for both the age and sex factors to be significant ($p < .05$) and the interaction effect to be non-significant. Females usually scored higher than males. Scores increased fairly consistently with age through age 18, after which point the patterns lost their consistency, probably because the sample becomes quite unique past high school age. The exceptions to these trends were:

-Sense of Control (Table 7): Sex differences were not significant ($p = .219$)
-Self Esteem (Table 10): Sex differences were not significant ($p = .167$)
-Attitudes toward Learning (Table 12): The age X sex interaction was significant ($p = .038$)

Homogeneous Groups. To the right of the graphs are one to three vertical lines denoting homogeneous groups. Fourteen age-sex groups were formed and subjected to one-way analyses of variance. Tukey's test of Honestly Significant Differences was performed to determine which means are significantly different from one another. If two means fall within any band as shown on the charts, the difference between them is not significant ($p > .05$).

Table 1. Form A

N's for means, standard deviations, and relationships between test scores and age and sex.

	Age									
Sex	14	15	16	17	18	19	20	21	?	Total
Male	269	285	233	172	65	35	22	17	20	1118
Female	200	245	209	160	92	63	30	13	27	1039
?	0	0	5	3	0	0	0	1	39	48
Total	469	530	447	335	157	98	52	31	86	2205

Table 2. Form B

Same as Table 1 but for Form B

Sex	14	15	16	17	18	19	20	21	?	Total
Males	266	300	249	174	70	30	17	14	16	1136
Females	172	230	218	206	94	61	35	18	22	1056
?	2	2	2	1	1	1	0	0	29	38
Total	440	532	469	381	165	92	52	32	67	2230

Internal Consistencies. Cronbach's Alpha is a generalization of the Kuder-Richardson - 20 to accommodate non-dichotomous item scores. It is equal to the average of all possible split-half reliabilities and serves as an index of the degree to which the scale's items measure the same thing. Because the data file required to perform these analyses is extremely large, a one-third random sample was drawn from each county's pre-tests for computing Cronbach's Alphas.

Table 3. Form A

N's for tests of internal consistency. Grand total includes those who failed to indicate their age and/or sex.

Sex	14-15	16-17	18-21	Total
Males	140	103	32	275
Females	117	95	49	261
Total	257	198	81	551

Table 4. Form B

Sex	14-15	16-17	18-21	Total
Males	148	110	21	273
Females	106	104	22	232
Total	254	214	43	551

Test-retest reliabilities. The data used to estimate the stability of scores over time are far from ideal. The SPEDY evaluation involved re-testing participants of each of 19 separate programs toward the end of the summer, an average of eight weeks after pre-testing. All of the youth experienced career education activities in the interim; the amount and type varied somewhat within programs and substantially across programs. Correlations between pre- and post-tests were computed for each program separately so as to minimize the effects of differential treatments across programs. Still, treatment differences within programs as well as interactions between subjects and treatments probably affected these correlations. Higher estimates of test-retest reliablity would be expected from a more typical validation study where no relevant treatment takes place between test dates.

Only participants with matching pre- and post-test scores were included in these analyses. Three of the nineteen programs with N's of less than ten were excluded.

Table 5. Form A

N's for test-reliabilities.

Number of programs: 16

Total N: 865

Range of N's for individual programs: 20-159

Median N on which coefficients are based: 40

Table 6. Form B

Number of programs: 16

Total N: 900

Range of N's for individual programs: 15-167

Median N on which coefficients are based: 46

Relationships between scores and Career Plans Saliency

Preceding the test items was the question: "Do you know what kind of work you want to be doing ten years from now?" One-way analyses of variance demonstrated significant ($p < .001$) relationships between responses to this question and test scores for every scale. For all but two of the scales, the order of means was associated with responses as follows, beginning with the lowest-scoring group:

1. No, I have no idea. (N = 324 [form A], 347 [form B])
2. Not sure, I just know what I do NOT want to do. (N = 101, 109)
3. Not sure, but I have some things in mind. (N = 1131, 1204)
4. Yes, I know exactly what I want to do. (N = 495, 455)

On the Work-Related Attitudes and Attitudes Toward Learning scales, the group giving the third response scored higher than those giving the fourth; otherwise, the order of means was the same.

Although the relationships were reliable, career plans saliency accounted for a rather small proportion of test score variance, ranging from 1.0 percent on Sex Equity to 8.4 percent on Career Planning. Thus, complete data are not presented here.

Relationships Between Test Scores and Educational Status

Similar analyses were performed with similar results for a question about participants' educational status. The order of means was the same for all scales, with the response of the lowest-scoring group first:

1. I have not finished high school and DO NOT plan to. (N = 224, 252)
2. I have not finished high school but PLAN to. (N = 1639, 1640)
3. I am a high school graduate. (N = 188, 187)
4. I have had education or formal training beyond high school. (N = 55, 66)

Again, differences were highly reliable ($p < .001$) but not large, with the proportion of score variance accounted for by responses ranging from 2.0 (Work-Related Attitudes) to 5.4 (Career Planning).

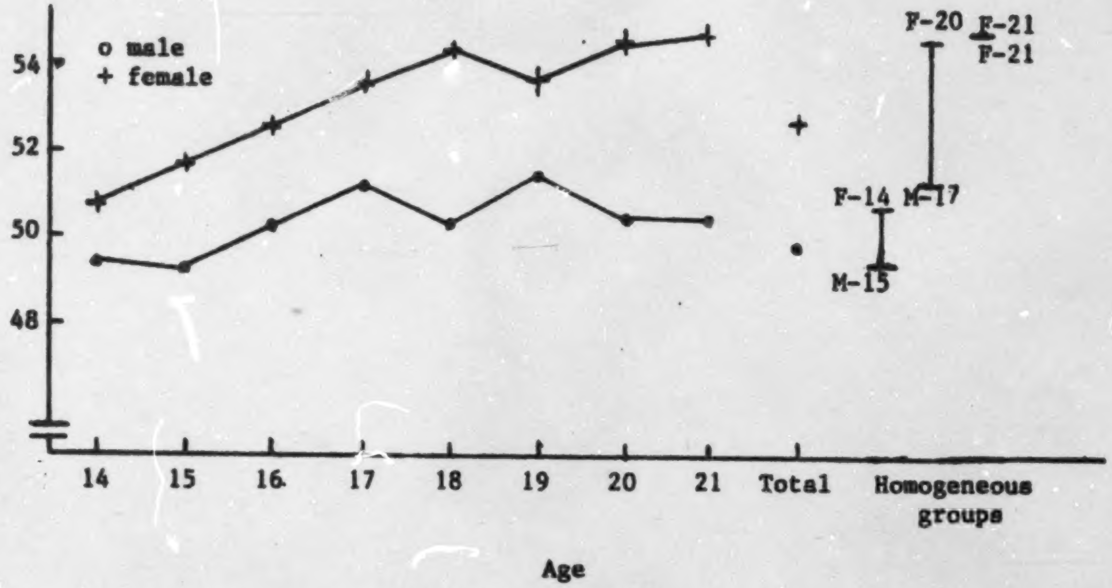
Inter-Scale Correlations

Twelve counties who chose to administer both forms of the pre-test to all participants provided the data required to generate a complete inter-scale correlational matrix.

Table 7

WORK-RELATED ATTITUDES

Maximum possible score = 64



Means N = 2202

	14	15	16	17	18	19	20	21	Tot
M	49.28	49.22	50.23	51.06	50.34	51.31	50.41	50.41	49.88
F	50.79	51.84	52.94	53.74	54.23	53.84	54.50	54.62	52.60
Tot	50.03	50.43	51.39	52.[illegible]3	52.62	52.94	52.77	52.19	51.07

Standard Deviations N = 2202

	14	15	16	17	18	19	20	21	Tot
M	7.86	8.13	7.56	7.65	7.41	9.49	8.88	9.76	7.93
F	7.11	6.68	7.04	6.92	6.72	5.75	5.44	5.77	6.85
Tot	7.51	7.59	7.49	7.39	7.25	7.36	7.31	8.28	7.59

Internal Consistencies - Cronbach's Alpha N = 551

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.77	.72	.79	.78	.79	.56	.77

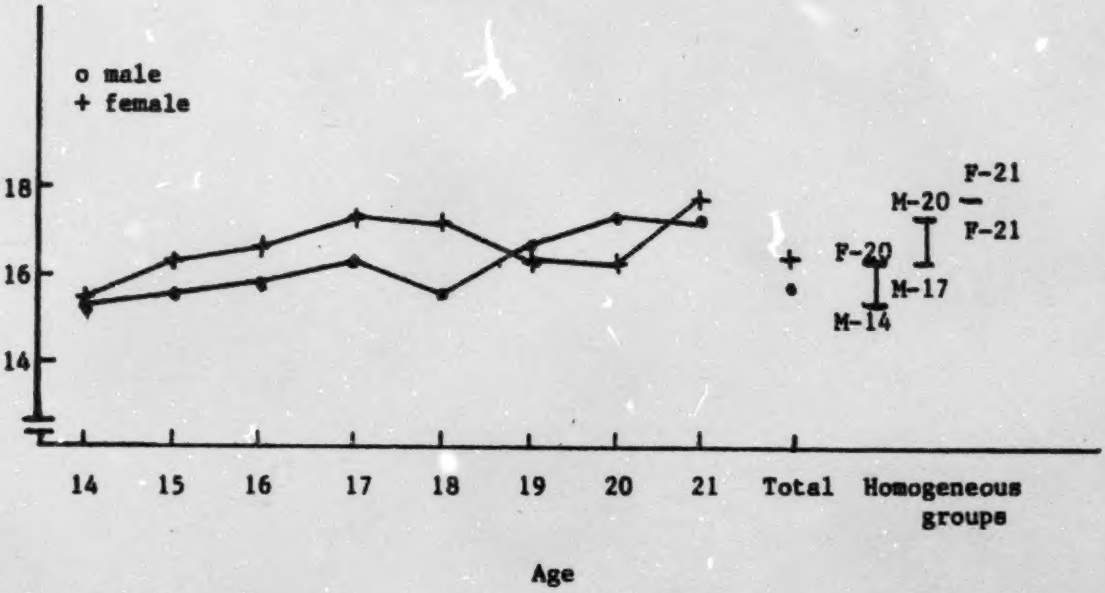
Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .74 Minimum = .26 Median = .59

Table 8

SENSE OF CONTROL

Maximum possible score = 25



Means N = 2195

	14	15	16	17	18	19	20	21	Tot
M	15.30	15.53	15.96	16.36	15.56	16.69	17.23	17.18	15.78
F	15.33	16.23	16.56	17.11	17.09	16.37	16.24	17.69	16.35
Tot	15.34	15.85	16.20	16.69	16.46	16.48	16.67	17.52	16.01

NOTE: Sex differences are not significant (p = .219)

Standard Deviations N = 2195

M	3.81	3.72	4.24	4.35	3.69	5.18	3.92	3.54	4.04
F	3.93	4.19	4.08	4.73	3.87	4.68	4.16	4.31	4.21
Tot	3.82	3.96	4.17	4.55	3.86	4.85	4.05	3.82	4.14

Internal Consistencies - Cronbach's Alpha N = 549

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.59	.72	.77	.74	.66	.79	.72

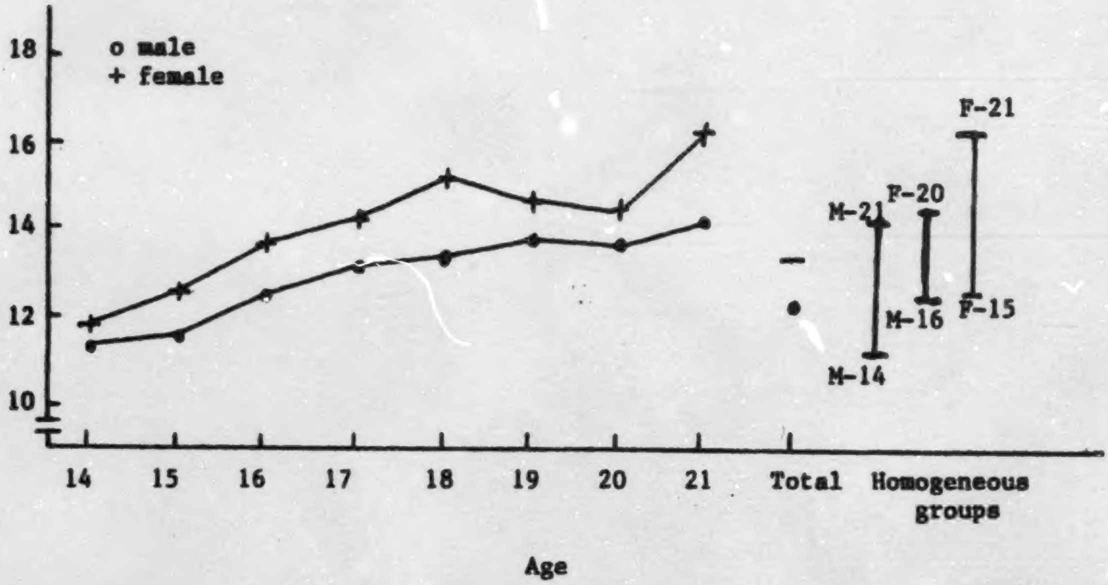
Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .88 Minimum = .04 Median = .67

Table 9

JOB-SEEKING SKILLS

Maximum possible score = 21



Means N = 2197

	14	15	16	17	18	19	20	21	Tot
M	11.40	11.68	12.63	13.08	13.29	13.97	13.95	14.18	12.30
F	11.80	12.69	13.81	14.26	15.15	14.89	14.72	16.31	13.43
Tot	11.52	12.15	13.19	13.66	14.38	14.56	14.39	15.16	12.83

Standard Deviations N = 2197

	14	15	16	17	18	19	20	21	Tot
M	3.42	3.44	3.38	3.84	3.88	3.91	4.72	3.47	3.65
F	3.71	3.44	3.55	3.51	2.96	3.03	3.46	2.98	3.62
Tot	3.51	3.47	3.50	3.71	3.48	3.38	4.03	3.35	3.67

Internal Consistencies - Cronbach's Alpha N = 549

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.64	.66	.63	.75	.75	.69	.70

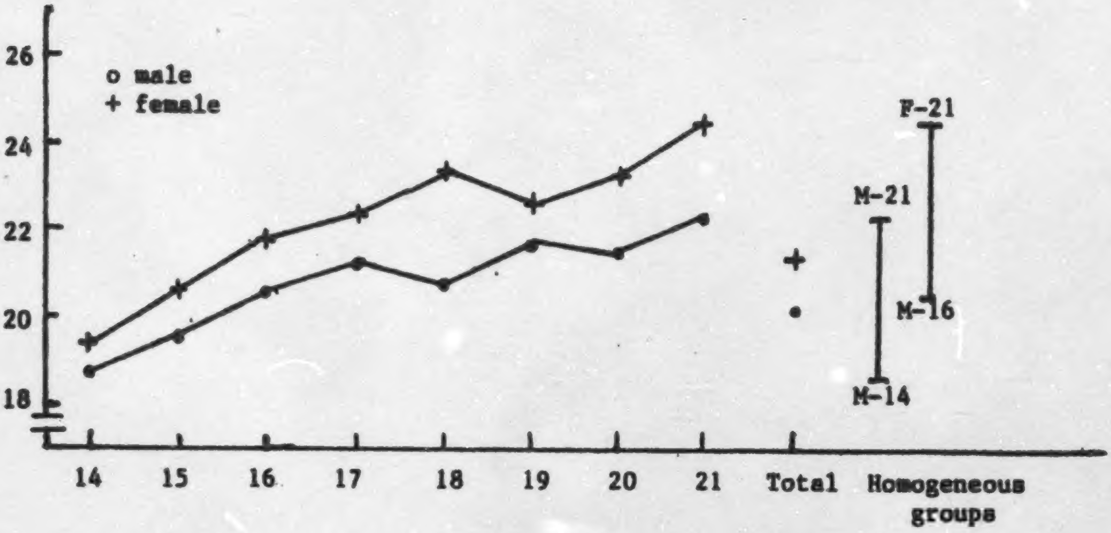
Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .80 Minimum = .00 Median = .65

Table 10

JOB-SPECIFIC OCCUPATIONAL INFORMATION

Maximum possible score = 34



Age

Means N = 2192

	14	15	16	17	18	19	20	21	Tot
M	18.87	19.53	20.72	21.06	20.88	21.80	21.64	22.24	20.08
F	19.39	20.73	21.87	22.21	23.43	22.67	23.10	24.54	21.40
Tot	19.10	20.09	21.20	21.57	22.37	22.36	22.47	23.19	20.64

Standard Deviations N = 2192

	14	15	16	17	18	19	20	21	Tot
M	4.17	4.40	4.54	4.89	4.35	5.11	5.37	5.12	4.60
F	4.54	4.24	4.34	4.25	4.40	4.09	4.79	2.57	4.49
Tot	4.33	4.36	4.52	4.63	4.55	4.48	5.05	4.24	4.61

Internal Consistencies - Cronbach's Alpha N = 549

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.58	.63	.72	.71	.74	.75	.70

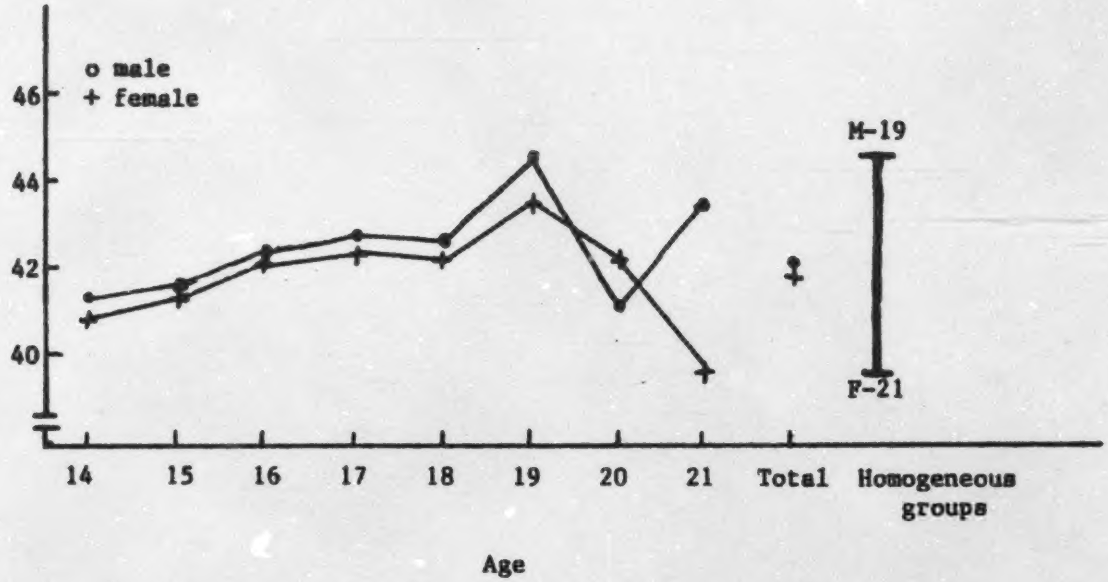
Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .91 Minimum = .36 Median = .64

Table 11

SELF ESTEEM

Maximum possible score = 66



Means N = 2225

	14	15	16	17	18	19	20	21	Tot
M	41.41	41.60	42.27	42.85	42.80	44.80	41.06	43.64	42.07
F	40.99	41.56	42.03	42.39	42.36	43.56	42.34	39.61	41.93
Tot	41.21	41.58	42.15	42.61	42.55	43.90	41.92	41.38	42.01

NOTE: Sex differences are not significant (p = .167)

Standard Deviations N = 2225

M	6.94	7.23	7.07	7.14	7.98	8.58	8.39	8.85	7.27
F	7.77	7.54	7.39	7.04	7.13	8.48	6.94	6.17	7.45
Tot	7.23	7.36	7.20	7.07	7.46	8.46	7.39	7.61	7.38

Internal Consistencies - Cronbach's Alpha N = 551

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.79	.82	.78	.78	.75	.88	.81

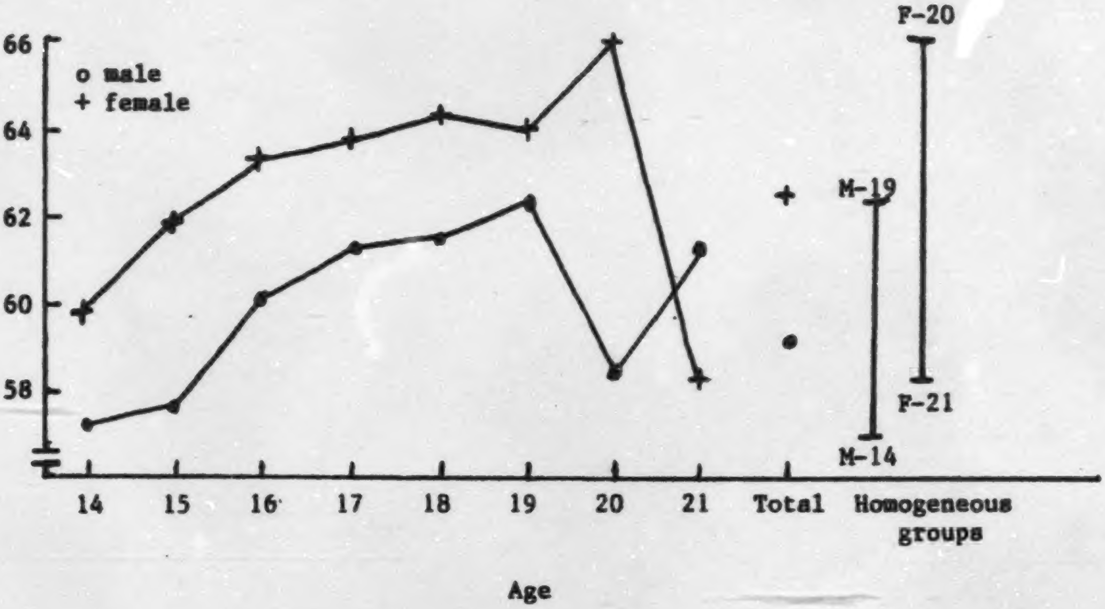
Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .83 Minimum = .37 Median = .63

Table 12

CAREER PLANNING

Maximum possible score = 88



Means N = 2222

	14	15	16	17	18	19	20	21	Tot
M	57.22	57.75	60.05	61.23	61.52	62.37	58.47	61.36	59.04
F	59.82	61.98	63.38	63.90	64.37	64.00	66.00	58.28	62.77
Tot	58.35	59.62	61.59	62.69	63.05	63.33	63.54	59.63	60.80

Standard Deviations N = 2222

	14	15	16	17	18	19	20	21	Tot
M	10.83	11.12	9.80	11.36	12.68	12.00	14.13	11.84	11.09
F	10.00	10.09	9.84	9.87	10.04	10.67	10.31	10.97	10.11
Tot	10.53	10.88	9.94	10.64	11.34	11.09	12.09	11.28	10.78

Internal Consistencies - Cronbach's Alpha N = 550

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.80	.77	.79	.76	.84	.73	.79

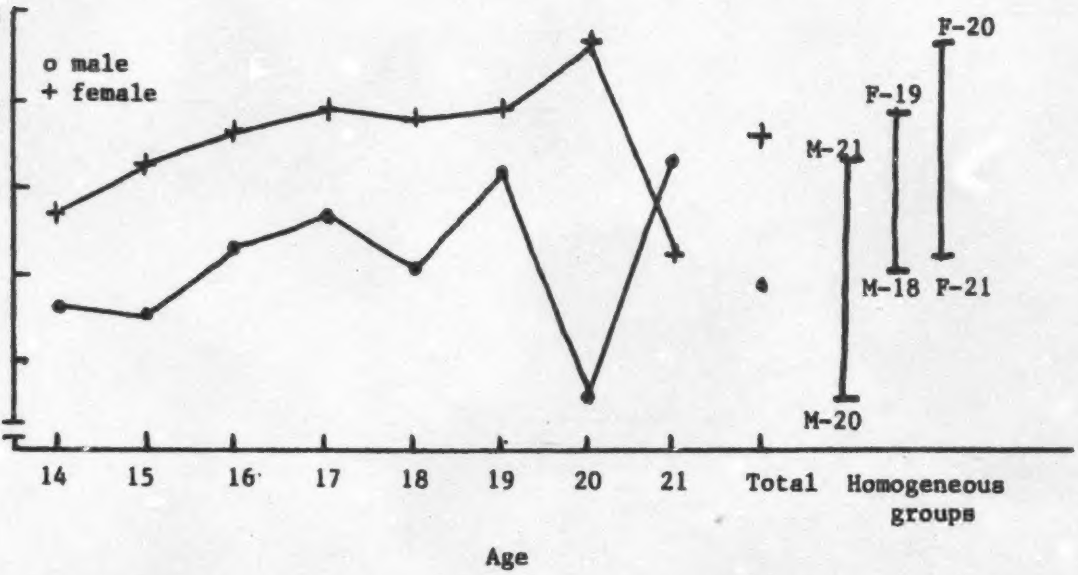
Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .85 Minimum = .49 Median = .71

Table 13

ATTITUDES TOWARD LEARNING

Maximum possible score = 42



Means N = 2223

	14	15	16	17	18	19	20	21	Tot
M	31.13	31.08	32.60	33.43	32.09	34.33	29.06	34.86	31.95
F	33.47	34.55	35.16	35.98	35.77	35.93	37.40	32.39	35.08
Tot	32.13	32.58	33.79	34.78	34.14	35.27	34.67	33.47	33.40

NOTE: The sex X age interaction is significant (p = .038)

Standard Deviations N = 2223

M	7.43	7.49	6.91	6.94	7.54	6.75	9.06	6.84	7.33
F	6.85	6.43	6.33	5.85	5.92	6.17	4.97	7.64	6.34
Tot	7.27	7.24	6.76	6.51	6.91	6.47	7.60	7.29	7.06

Internal Consistencies - Cronbach's Alpha N = 551

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.85	.77	.85	.74	.89	.80	.84

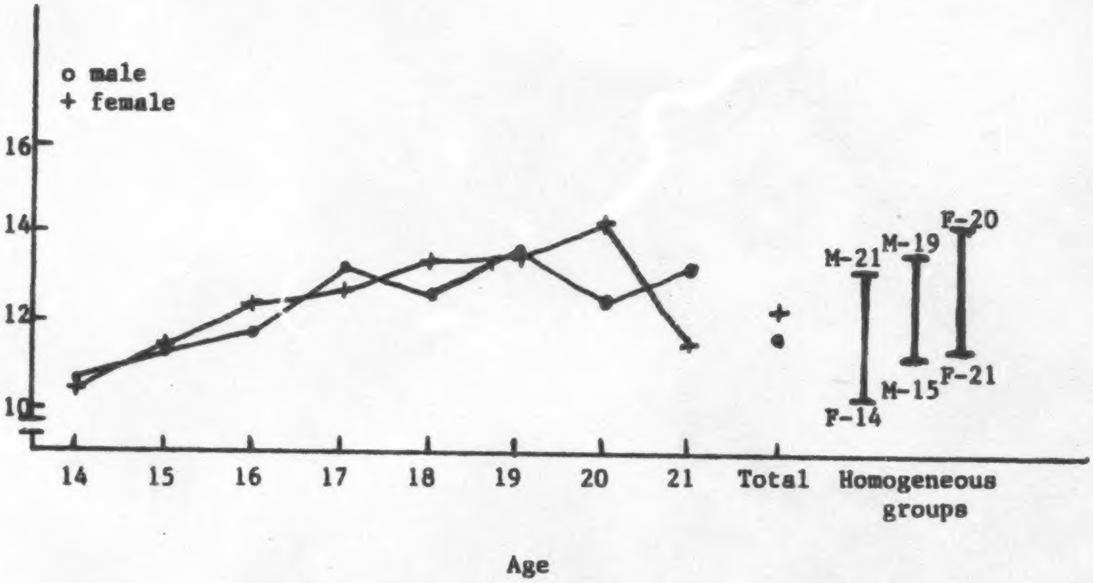
Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .81 Minimum = .48 Median = . 63

Table 14

GENERAL OCCUPATIONAL INFORMATION

Maximum possible score = 22



Means N = 2177

	14	15	16	17	18	19	20	21	Tot
M	10.63	11.28	11.94	13.18	12.73	13.67	12.53	13.07	11.75
F	10.56	11.33	12.38	12.73	13.54	13.66	14.26	11.50	12.17
Tot	10.59	11.31	12.14	12.94	13.16	13.66	13.69	12.19	11.92

NOTE: The sex difference is not significant (p = .702)

Standard Deviations N = 2177

M	3.71	3.72	3.74	3.98	4.04	4.68	5.09	5.06	3.95
F	3.32	3.65	3.59	4.02	3.51	3.54	4.03	4.15	3.81
Tot	3.56	3.68	3.69	4.00	3.77	3.92	4.43	4.56	3.90

Internal Consistencies - Cronbach's Alpha N = 540

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.65	.57	.65	.67	.82	.64	.68

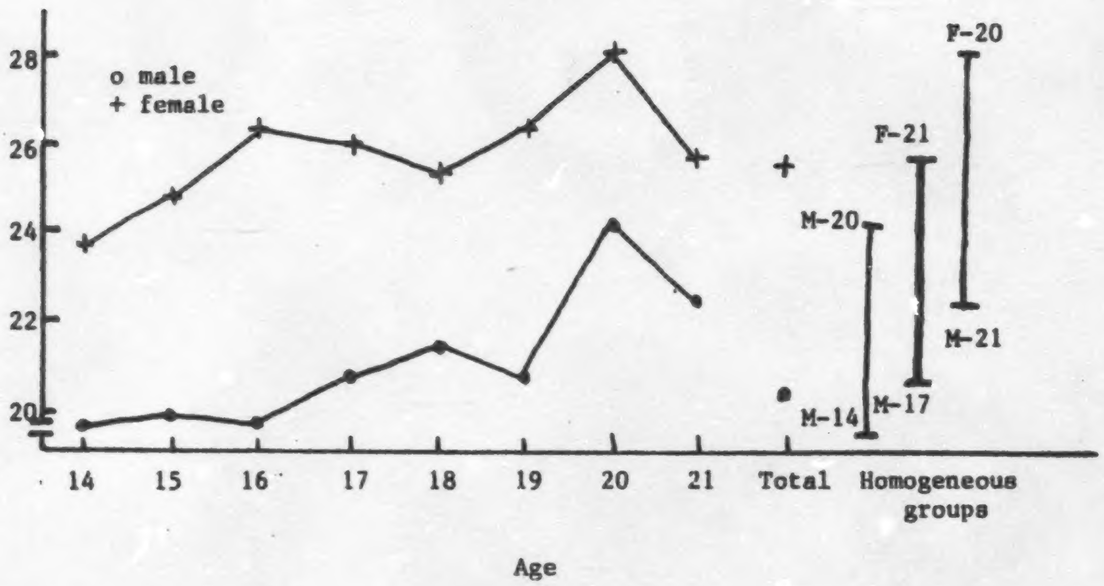
Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .82 Minimum = .36 Median = .58

Table 15

SEX EQUITY

Maximum possible score = 40



Means N = 2223

	14	15	16	17	18	19	20	21	Tot
M	19.61	19.97	19.72	20.82	21.49	20.87	24.06	22.57	20.14
F	23.80	24.90	26.42	26.00	25.48	26.46	28.11	25.89	25.66
Tot	21.45	22.10	22.82	23.61	23.76	24.55	26.79	24.44	22.76

Standard Deviations N = 2223

	14	15	16	17	18	19	20	21	Tot
M	6.91	6.94	6.56	7.14	7.35	6.23	8.97	8.07	6.97
F	7.16	7.26	6.87	6.70	6.89	7.51	5.71	7.12	6.98
Tot	7.27	7.48	7.50	7.37	7.33	7.54	7.12	7.61	7.48

Internal Consistencies - Cronbach's Alpha N = 550

14-15		16-17		18-21		
M	F	M	F	M	F	Total
.78	.76	.74	.77	.81	.83	.80

Test-Retest Reliabilities Summary of 16 Pearsonian Coefficients

Maximum = .89 Minimum = .62 Median = .79

Table 16

Composition of sample for inter-scale correlations.

Sex	14	15	16	17	18	19	20	21	?	Total
Male	60	63	44	40	21	3	4	4	0	239
Female	43	55	44	34	16	12	7	2	0	213
?	0	0	0	0	0	0	0	1	3	4
Total	103	118	88	74	37	15	11	7	3	456

Inter-scale correlations. Cronbach's Alphas on diagonal based on different sample (see Tables 3 and 4)

	1	2	3	4	5	6	7	8	9
1. Work-Related Attitudes	(.77)								
2. Sense of Control	.56	(.72)							
3. Job-Seeking Skills	.57	.61	(.70)						
4. Job Spec. Occ. Info.	.56	.57	.63	(.70)					
5. Self Esteem	.27	.35	.37	.35	(.81)				
6. Career Planning	.33	.41	.44	.44	.70	(.79)			
7. Attit. Toward Learning	.36	.41	.40	.45	.62	.83	(.84)		
8. General Occ. Info.	.32	.44	.45	.52	.53	.63	.63	(.68)	
9. Sex Equity	.26	.32	.37	.34	.44	.52	.49	.48	(.80)

APPENDIX D

Instructions for Administering the New Instrument for Career Education

NED NEW EDUCATIONAL DIRECTIONS, INC.
a nonprofit service organization
BOX 307 CRAWFORDSVILLE, INDIANA 47933 (317) 362-8877

INSTRUCTIONS FOR ADMINISTERING

The New Instrument for Career Education

Important things to remember

There are two different tests--form A and form B. In most cases, half of your clients will take one and half will take the other. We did this to cut down on testing time.

At the end of the summer when we analyze the data, we will only be able to use the scores of youth who:

1. take the same test (form A or B) in June and again in August, and
2. have the same ID number (usually their social security number) entered properly on both their June and August answer sheets.

Different ways to administer the tests

Tests may be administered either individually or in groups. They may be read silently by the youth or aloud by the administrator. For readers, it is best to allow them to read it silently. If you know of some clients who will be unable to read the test, read it aloud to them individually or in small groups if this can be arranged. If you read the tests aloud, try to avoid biasing the responses by your tone of voice.

Approach to the testing

Try to convey to the youth that the survey is a serious matter, but that it is unlike most tests they have taken. We want to know how they feel about things; we are not trying to find out how "smart" they are. It may help to use the term "questionnaire" rather than "test". Try to provide a relaxed, yet orderly atmosphere for the testing.

Who gets what test

There are two test forms, form A and form B. Form A (yellow) will be taken by youth whose social security number ends in an even number (0, 2, 4, 6, 8). Form B (blue) will be taken by youth whose social security number ends in an odd number (1, 3, 5, 7, 9).

Form	Color	SS #-last digit	Code on answer sheet
A	yellow	even	0
B	blue	odd	1

Some clients may not yet have social security numbers when they take the pretest in June. Just assign these individuals a three-digit number beginning with 001, 002, etc, and give them form A or B according to whether their code is even or odd. Please record these numbers so they can use the same ones in August.

Administration time

These are not timed tests. To the extent feasible, everyone should be given enough time to finish. However, most should be able to complete the test in an hour or less.

You may give the youth a brief break after about twenty minutes, then allow each youth to resume wherever he or she left off before the break. (If a break is apt to be more disruptive than productive, please omit it.)

Administration procedures

1. Distribute the tests. Answer sheets are inside the booklets.
2. Make sure all youth have #2 pencils.
3. Instruct the youth to:
    a. Turn the answer sheet sideways so that the blank labeled "instructor" is at the top.
    b. Open their test booklets to the first page.
    c. Find the grid at the lower right of the sheet.
    d. Find the columns labeled "1, 2, 3, 4" on the grid.
    e. In the space below the number "1" on the grid, write a "0" (zero) if they are male or a "1" if they are female.
    f. Write in the number that answers questions 2 (education), 3 (age), and 4 (career plans).
    g. Under the numbers they have written into the four blanks, blacken in the corresponding number in the column. (These numbers range from 0 to 9.)
    h. Leave the date box blank.
    i. Starting in the first column in the "identification number" box, write in their social security number. They should leave no blanks and should not include the dashes. (For example, the number 302-68-8569 will appear as 302688569)
    j. Blacken the number in the column under each number they have written.
    k. Check the last column of the identification block (after their social security number). The "0" should already be marked if they have form A (yellow). The "1" should be marked if they have form B (blue).
4. Instruct the youth to turn their answer sheets right side up and to find the spaces labeled 1 to 160.
5. Read aloud the section on the first page of the test booklet labeled "Things to remember".
6. Remind them to erase completely if they change an answer.
7. TO THIS POINT, ANSWER ALL QUESTIONS. If anyone asks whether they should guess or leave a question blank if they are not sure of the answer, tell them to guess.
8. Have the youth turn to the next page and begin the test.
9. If a youth asks about a question, you may pronounce a word or read the question aloud. But please do NOT define words or re-state the question in your own words.

10. If you use the extra answer sheets provided, please fill in the "0" for form A or the "1" for form B in the last column of the identification number block.

11. If you decide to have the youth put their name on the answer sheet so that you can check to make sure they have filled in their social security number correctly, they may write in the name block. They may also use the margin to write their name or the name of the program.

Checks afterwards

Make sure that everyone has entered their social security number (or assigned code number) onto the answer sheet properly. Also make sure their sex, education, age, and career plans have been indicated.

Preparing for delivery to or pick-up by NED

Keep the test booklets in your county or send them to the ODC. NED does not need them back.

If there is more than one SPEDY program in the county, separate the answer sheets by the program in which the youth will participate. If youth from several programs take the test together, it may be necessary to ask them to write the name of their program on the margin of the answer sheet.

Fill out a header sheet (attached) for each program in your county (in most cases, there is only one program) and attach it to the answer sheets of the program's participants. Then return them to your ODC.

There is no need to separate form A answer sheets from form B answer sheets.

Thank you for your help!